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SEPTEMBER, 1951

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TRAINS Ian Allan ILLUSTRATED

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Editor:
G. FREEMAN ALLEN
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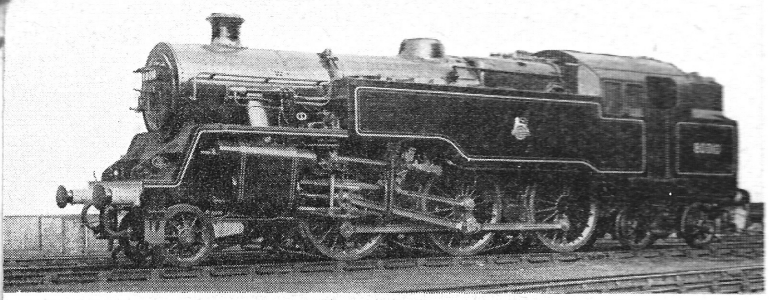
Front Cover: THE "GOLDEN ARROW", S.R., Dover-bound near Knockholt, is headed by "West Country" Pacific No. 34103 *Calstock* *[F. R. Hebron*

Above: ON THE CHESHIRE LINES—Class "J10" 0-6-0 No. 65139 climbs the 1 in 90 from Mouldsworth Junction to Delamere Forest with a Chester Northgate—Manchester train (10/5/49) *[P. M. Alexander*



THE STANDARD 2-6-4 TANK No. 80010. The first two engines of this type are operating from Tunbridge Wells, S.R. *[British Railways*

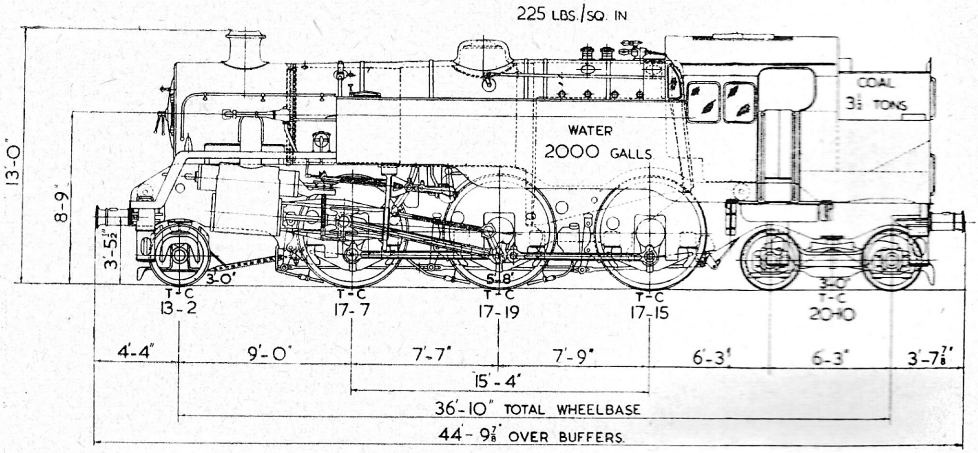
TRAINS of Thought

FROM THE EDITORIAL DESK

A SERIOUS GAP IN RAILWAY LITERATURE, it seems to us, is the complete lack of any handy reference book on carriage stock. Patrolling the sea wall at Dawlish on a recent summer Saturday, we became somewhat depressed—not for the first time—by the unceasing procession of similar-looking locomotives, mostly in a similar state of dull black "livery" and maintenance, and mostly with uninspiring architectural names. Apart from the extraordinary variety of G.W. carriage styles, the passing cross-country and relief trains offered a diverse selection of foreign stock—a Midland clerestory saloon, Great Eastern and Great Central vehicles of very ancient vintage, L.N.W. and Caledonian, to mention only a few of the types noted. A profusion of literature exists on locomotives, from ABCs and Shedbooks to the more complex studies of the super-detailed researchers, but apart from a volume of carriage stock no longer in service, we know of no handbook, portable or otherwise, that provides a ready guide to British Railways' carriages. Yet in these days of increasing uniformity in locomotive stock, the vehicles making up some trains are of equal if not greater interest in their variety than the engines at the front end. So far as we are concerned, it is of equal interest to us to know that some antique found on a country branch was one of a series of vehicles specially designed for a particular pre-grouping express service, as it would be to learn that the engine hauling it had a similar history. We hope that soon some authoritative student will desert the well-tilled field of locomotive history and devote his energies to providing a ready reference book, with diagrams and illustrations, that will enable us to identify British rolling stock more accurately and in greater detail, and thereby increase immeasurably the fascination of lineside observation.

THE B.R. STANDARD CLASS "4MT" 2-6-4 TANK

FOURTH of the new standard locomotive types of British Railways to take the rails is the Class "4" 2-6-4 tank, of which the first example, No. 80010, was completed at Brighton Works during June and is now working from Tunbridge Wells. The present order comprises



Boiler Barrel Diameter (outside)	4' 9" increasing to 5' 3"	Free Flue Area	3.78 sq. ft.
Firebox (Outside)	8' 6" Long × 4' 0½" Wide	Grate Area	26.7 sq. ft.
Length between Tubeplates	12' 3"	Cylinders (Two)	18" × 28"
Heating Surfaces : Tubes	1,223 sq. ft.	Tractive Effort	25,100 lb.
Firebox	143 sq. ft.	Adhesion Factor	4.73
Total Evaporative	1,366 sq. ft.	Brake Percentage	44.2
Superheater	246 sq. ft.	Boiler Type	BR 5

54 of these engines, 21 for the Scottish Region, 20 for the London Midland Region, 10 for the Southern Region, and 3 for the Eastern and North Eastern Regions. Of these 44 are being built at Brighton and the remainder at Derby.

The design in general resembles that of the L.M.R. 2-6-4 tanks, except that the boiler pressure is advanced from 200 to 225 lb. per sq. in., so bringing it into line with that of various Western Region tank classes. There are many points of close resemblance between the 2-6-4 tank and the Class "4" 4-6-0; the 18 in. x 28 in. cylinders and 5 ft. 8 in. driving wheels are identical, but there are certain boiler differences. As the tank has a pony truck and not a bogie at the leading end, the length of the boiler barrel between tubeplates is shortened from 13 ft. to 12 ft. 3 in., and the tube and flue heating surface therefore comes down from 1,301 to 1,223 sq. ft. and the superheating surface from 265 to 246 sq. ft. But the firebox heating surface and grate area are the same in both engines—143 and 26.7 sq. ft. in each case. The 4-6-0 boiler is classified as "BR4" and that of the 2-6-4 tank as "BR5."

As compared with the L.M.R. standard 2-6-4 tank, heating and superheating surfaces and firegrate area are identical; the change in cylinders from 19 5/8 in. x 26 in. to 18 in. x 28 in. is so closely balanced by the rise in working pressure that the 24,670 lb. tractive effort of the older type is almost the same as the 25,100 lb. of the new. The weight in working order comes down from 87 tons 17 cwt. to 86 tons 13 cwt. Adhesion weight is increased from 51 tons 14 cwt. in the L.M.R. engine to 53 tons 1 cwt. in the new standard type. The overall width of No. 80010 has been kept down to 8 ft. 9¼ in. (as compared with 8 ft. 11⅛in. in the L.M.R. 2-6-4 tank), and as a result the new class will have practically unrestricted availability over all main and secondary lines in Great Britain. It is also more compact than the L.M.R. tank, with a length over buffers of 44 ft. 10 in., as compared with 47 ft. 2¾ in.

In all other respects the new tank conforms to the general standards which are being adopted in British Railways designs. A rocking grate is provided, of which the front and rear sections can be rocked independently from the footplate while the engine is in motion, and the full travel of which provides for fire dropping when the engine is standing over a pit. There is a self-cleaning smokebox, with wire mesh grid to prevent the accumulation of ash and the emission of large particles of unburnt fuel. Plain bearing axleboxes, and not roller bearings, are provided for all wheels, the only roller bearing assembly on the engine being that of the return crank rod big end of the Walschaerts gear.

The cab follows the modern standards, with the cab windows inclined at 37 deg. to the front plate, which is found of considerable advantage in improving the look-out ahead in forward running. Tanks and bunker have curved sides, like the new standard tenders, both to suit loading gauge restrictions and also to conform to the standard coach profile; both are of welded construction throughout. Water pick-up apparatus for both directions of running is being fitted only to the engines for the London Midland Region, but provision is made for a similar fitting to the remainder if the equipment is required at a later date.

THE SOUTHERN CLEANS HOUSE

AS briefly reported last month, four more Southern classes have been rendered extinct. The chief difference between the two ex-L.B.S.C. Pacific tanks, originally Nos. 325 *Abergavenny* (built 1910) and 326 *Bessborough* (built 1912), was that the latter had Walschaerts gear; it was developed by Billinton from Marsh's original design No. 325, as Marsh left railway service at the end of 1911. Like the first Atlantics, both had bogie brakes and originally clerestory roof cabs, since altered to conform to a composite loading gauge. The Billinton "B4" 4-4-0s, built 1899-1902, were designed to meet the heaviest passenger requirements of their day, especially the famous 8.45 a.m. from Brighton, the "City Limited," whose normal Monday load was usually up to 350 tons. The class totalled 33, all originally named, but 12 were officially "rebuilt" to Class "B4X"—the latter were virtually new engines apart from bogies and minor details—from 1922-4. The ex-L.S.W.R. "T14" 4-6-0s, the "Paddleboxes," were the last of Drummond's 4-cylinder 4-6-0 types, of which 10 were built in 1911-2. By comparison with his earlier classes of this *genre*, driving wheel diameter was increased from 6 ft. to 6 ft. 7 in., and the outside cylinders were advanced to a position in line with those inside. Nos. 447/58-62 were originally fitted with Drummond's smokebox superheater, the remainder were saturated; all had the standard Drummond firebox tubes, removed by Urie, who also fitted orthodox Eastleigh superheaters and extended the smokeboxes to suit. In turn, Maunsell gave the "T14s" his own pattern of superheater, and, by dint of running plate modifications to incorporate a new system of lubrication for the driving wheels, brought the engines to their final state of appearance. The original 20 0-4-4 tanks of Class "T1," Nos. 61-80, built 1888-90 at Nine Elms works, were a tank engine version of the "A12" or "Jubilee" 0-4-2 tender engine. They were Adams' engines, and he added 30 more of similar type, classified "F6," to stock from Nine Elms in 1894-6, placing the steam chest between, instead of underneath, the cylinders. Intended for London suburban services, in fact these 0-4-4s have seen service over most of the ex-L.S.W.R.; the individual classifications were abolished long ago—actually all three last survivors were "F6."

As we go to press we learn that the holocaust of last survivors was continued in July. The first of five "H1" Atlantics emerged from Kitson's works, Leeds, in 1905, a Marsh design based on the Ivatt G.N. Atlantic with which he had been associated when at Doncaster, but differing in its deeper firebox, cylinder dimensions, standard Brighton cab (later modified) and a working pressure of 200 lb., the highest ever used on the L.B.S.C.R. Nos. 2040/1 were withdrawn in 1944; No. 32039 was Mr. Bulleid's sleeve-valve "guinea-pig." The 20 "IIX" 4-4-2 tanks, of which the last survivor was No. 32002, were rebuilds by Maunsell from 1925-32 of the first Brighton 4-4-2 tanks, the "IIs" of 1906/7, with boilers taken from "B4"' 4-4-0s when that class was reconstructed, to improve the "I1's" notoriously poor steaming qualities. A total of 125 "D1" 0-4-2 tanks were rebuilt by Stroudley for London suburban and country branch working from 1873-87, all originally named. No. 32359, the last "D1/M," was one of those fitted for push-and-pull working during the Marsh regime from 1909 onwards. During the last war "D1s" travelled up to Scotland; S.R. No. 2605 was station pilot at Ayr, No. 2358 reached Inverness and No. 2699 penetrated as far north as Wick. There were 10 Class "T" 0-6-0 tanks, built 1879-93 at Longhedge works by Kirtley for the L.C. & D.R.; since 1936 two of them have been in service—and these two were reprieved only by the outbreak of war in 1939. Intended for shunting and local goods train work, they nearly all managed to make a trip to Boulogne during the 1914-18 war. Finally, the "K10s," or "Small Hoppers," were Drummond's first mixed traffic 4-4-0s for the L.S.W.R., of which 40 were built in 1901/2. They were built with 40 firebox water tubes, soon removed by Urie. In 1941, five "K10s," Nos. 135/7/8, 388/9, worked over the S. & D.J.R. and the first three later went to Nottingham, whence they returned home in 12/44; the first "K10s" were withdrawn in January, 1947.

LOCOMOTIVE RUNNING PAST AND PRESENT

by Cecil J. Allen
M.Inst.T., A.I.Loco.E.

Eastern and London Midland runs of 1951

AS the Editor indicated in a footnote to my article last month, with the coming of better weather, and the repair of some of the damage to railway tracks caused by the abnormally wet weather of the winter and spring, there has been an all-round improvement in British locomotive running. There is still a good deal of unpunctuality, on some main lines in particular, but fortunately there are still to be found many keen engine crews, prepared to do the utmost that the conditions of engines, coal and track, not to mention the attentions of signalmen and control, may permit. As is shown by the runs about to be described, they are having no small measure of success.

For example, Mr. Cecil M. Furst has sent me details of a run on the Sunday 9.50 a.m. from Wolverhampton to Euston, which was pulled up by adverse signals at Berkhamsted. The driver of rebuilt "Patriot" No. 45525 *Colwyn Bay* (Class "7") immediately set to work with his 12-coach train to make up the lost time. By Hemel Hempsted he was doing 53 m.p.h., by Kings Langley 67½ and by Bushey 70½; after a slight drop to 67½ at Carpenders Park, he then accelerated his engine to 71 m.p.h. by Hatch End, 74 by Harrow, and 75½ by North Wembley. From the Berkhamsted start the 355-ton train passed Hemel Hempsted, 3.5 miles, in 5 min. 54 sec.; Watford Junction, 10.6 miles, in 12 min. 18 sec.; Harrow, 16.6 miles, in 17 min. 29 sec.; and Wembley, 19.9 miles, in 20 min. 8 sec. But brakes then went on for more signal checks, and after passing Willesden, 22.6 miles, in 22 min. 28 sec.—just inside "even time"—delays ruined any further effort.

Another engine of the same rebuilt "Patriot" type, No. 45523 *Bangor*, figures in a run sent by "Goliath," with an identical load of 355 tons, this time made up of eleven vehicles, and starting from Rugby 3 min. late. The train was the 9.48 a.m. from Rugby, then allowed 70 minutes for the 65.2 miles to Watford, and 3 minutes late away. First class work was done from the start, with speed rising to 53 m.p.h. on the gradual rise to Kilsby Tunnel; then came 75 m.p.h. through Weedon, a minimum of 60 at Roade, 72 at Castlethorpe, over 60 all the way to Leighton Buzzard, and a lowest rate of 55½ over Tring Summit. A quick acceleration followed to 74½ m.p.h. at Hemel Hempsted, but before Kings Langley the driver was beginning to ease for his Watford stop. Actually the start to stop run of 65.2 miles was completed in 64 min. 41 sec.; an excellent time had been made over the 7.3 miles from Rugby to Welton in 10 min. 33 sec., and the 54.4 miles on to Kings Langley were run in 49 min. 42 sec. After restarting from Watford, *Bangor* whisked through Harrow at 72 m.p.h. and Wembley at no less than 77½, so passing Willesden, 12.0 miles, in 12 min. 38 sec., and stopping dead at Euston, 17.4 miles, in 19 min. 42 sec., 7 min. early. Just over 11½ min. thus had been gained by the crew, though it must be remembered that the Watford-Euston booking of 26 minutes then included a recovery margin of 5 minutes.

On another fine run timed by "Goliath," rebuilt "Royal Scot" No. 46124 *London Scottish* had a considerably heavier train of fifteen vehicles on the then 4.24 p.m. from Rugby (the "Manxman"), 467 tons empty and 505 tons gross, and a late start of three minutes. The start to Welton, 11 min. 46 sec., was naturally slower, but from there the "Scot" had a close race with the "Patriot"—74 m.p.h. at Weedon, 59 at Roade, 75 at Castlethorpe, and 62 before Bletchley—until pulled up for a bad relaying check at Leighton Buzzard. Bletchley, 35.9 miles, had been passed in the smart time of 37 min. 32 sec., but the check cost a good 4 minutes, and speed fell to 45½ m.p.h. at Tring. Down the hill towards London *London Scottish* made a stirring effort, however, with speeds of 76½ m.p.h. at Kings Langley, 67 through Watford, and 75½ at Wembley; Tring, 50.9 miles, was passed in 56 min. 23 sec., Watford, 65.2 miles, in 69 min. 7 sec., and Willesden, 77.2 miles, in 79 min. 18 sec., or 75¼ minutes net. More signal checks followed, but for all that Euston was reached 2 minutes early, in 89 min. 21 sec. from Rugby, or 82½ minutes net. The schedule of 94 minutes from Rugby also then included a recovery margin of 5 minutes from Willesden into Euston.

As an example of the capabilities of one of the larger engines, I cannot do better than describe a run for the details of which I am indebted to Lieut. W. J. Alcock. He was travelling from Glasgow

to Euston with the Sunday "Royal Scot," which had been very badly delayed north of Crewe, but whose passengers were fortunate in having on their Pacific, No. 46237 *City of Bristol*, a crew determined to reach Euston on time if this were at all possible. I am only sorry that the names of driver and fireman did not figure in the log, for they utilised to the full the opportunity presented by a complete absence of signal checks.

The weight of the "Royal Scot" was 462 tons tare and 490 tons gross—a substantial load. The train passed through Crewe at 35 m.p.h., and picked up to 49 by Betley Road, maintaining this speed on the 1 in 177 to Madeley, so that the 10.5 miles from Crewe up to Whitmore were run in 13 min. 22 sec. Down the gradual succeeding descent, 71 m.p.h. was reached, but there was a 10 m.p.h. permanent way slowing before Stafford —24.5 miles in 27 min. 45 sec. As a result of the check, the time regained as far as Rugeley was no more than 1½ minutes; but from now on *City of Bristol* began to recover the arrears by handfuls, on what was admittedly a very easy schedule.

Speed rose to 72 m.p.h. after Rugeley and 73 at Hademore troughs; the lowest rate up both the long inclines from Polesworth and from Nuneaton was 58 m.p.h.; 65½ was reached through Nuneaton and 67 through Brinklow. Milford, 28.6 miles, had been passed in 33 min. 40 sec.; now came times of 17 min. 3 sec. for the 19.5 miles on to Tamworth; 12 min. 12 sec. from Tamworth to Nuneaton, 12.9 miles; and 13 min. 59 sec. for the 14.5 miles from Nuneaton to Rugby, passed in 76 min. 54 sec. from Crewe (75.5 miles). By now 11 minutes had been regained.

The timing on to Roade allows for possible diversion via Northampton, and here alone there was a recovery of 13 minutes. But the gain was achieved by some very fine locomotive work; speed crept up from 45 m.p.h. through Rugby, to 53 at Kilsby Tunnel, and this was followed by 71 at Weedon, the unusually high minimum of 67 over Roade, and 77 at Castlethorpe. So the 22.7 miles from Rugby to Roade were reeled off in the notable time of 22 minutes exactly, and Castlethorpe, 103.3 miles from the start, was passed in 103 minutes—just inside "even time"—or 100 minutes net.

It was a pity that the next permanent way slowing should occur here, bringing speed down from 77 to 20 m.p.h., but the driver was not to be daunted. By Bletchley he had won back to 64 m.p.h. and by Leighton to 65; Tring summit was breasted at 54; the times from the start were 112 min. 30 sec. to Bletchley, 111.4 miles, and 127 min. 13 sec. to Tring, 126.4 miles. Immediately after passing Berkhamsted came the third and last permanent way slowing; after this, as the train was back on to schedule, the driver did not press the engine, and the highest speeds were 68 m.p.h. at Watford and 73 at Wembley.

To Watford, 140.7 miles, the time was 142 min. 17 sec., and to Willesden, 152.7 miles, 152 min. 55 sec.—"even time" once again—or 144¾ minutes net; and a smart conclusion brought the "Royal Scot" to rest at Euston in 160 min. 11 sec. from Crewe, or in a net time of 152 minutes for the 158.1 miles. As the schedule allowance, on the Sunday timing, was 194 minutes, the engine and crew had pulled up no less than *forty-two minutes* in running! All honour to them for a magnificent piece of work, which would have been outstanding even by pre-war standards.

But there is at least one current train service which leaves all pre-war standards over the same route completely in the shade. This is the accelerated and completely re-cast Great Eastern main line service of the Eastern Region between Liverpool Street and Norwich. On my very first trip to Norwich and back I was able to record in my notebook certain feats of which I should never even have dreamed in days gone by. I went down on the 12.30 p.m. from London—one of the 2 hr. 10 min. flyers with a single intermediate stop at Ipswich. It was a little disappointing to find the load no more than eight vehicles, of 264 tons tare, composing the train; and as this was the height of the summer season, the third class accommodation was inadequate, and some passengers were standing. The gross load thus was 285 tons. Pacific No. 70001 *Lord Hurcomb*, already rather grimy, was the engine, but the grime appeared to have no effect on the engine's capacity for work.

This was evident in the fastest start out of London by this route that I have ever timed or even heard of. The line was perfectly clear, and so we topped Bethnal Green bank at 26 m.p.h., had reached 52 by Bow Junction, went round Stratford curve with exemplary smoothness at 47, and touched 61 before Ilford, where the driver eased to 50. But by Romford we were up to 64 m.p.h., and reached 65 at the foot of Brentwood Bank, which *Lord Hurcomb* swarmed up at the almost incredible minimum of 50 m.p.h. So our times from the start were 7 min. 3 sec. to Stratford, 13 min. 31 sec. to Chadwell Heath, and 23 min. 48 sec. for the 20.2 miles from Liverpool Street to Shenfield—a brilliant exit in-

deed, and a cut of more than 2 minutes on a schedule which might well seem exacting enough.

There was a mysterious slowing before Ingatestone to 34 m.p.h., heralded by a fanfare of whistling—the driver evidently enjoyed the music of his chime whistle, for he used it well over fifty times on the journey!—but we got up to 71½ m.p.h. before Chelmsford, and were through the county town, 29.7 miles, in 33 min. 30 sec., easing here to 60 m.p.h. Matters were taken more easily from here on; there was no higher speed than 69 m.p.h. at any point, and steam was shut off for the descent to Witham: the 22.0 miles from Chelmsford to Colchester occupied 20 min. 39 sec., so that we cleared Colchester in 54 min. 9 sec. from London. Manningtree now imposes a very severe slowing for the bridge over the Stour, at an awkward place, for it is at the bottom of steep grades in both directions; we came down to 22 m.p.h., and the 17.0 miles from Colchester, passed at 45 m.p.h., to Ipswich stop took 21 min. 10 sec. But we rolled in nicely on time, having taken 75 min. 19 sec. for the 68.7 miles from Liverpool Street, or about 71½ to 72 minutes net.

The Ipswich-Norwich stage had some exciting moments, but on the whole was a disappointment. Before Bramford we had a permanent way slowing, and were then all but stopped by signal at Stowmarket because the preceding Harwich-Peterborough train, with a headway of 5 minutes only, had not cleared Haughley. At the top of Haughley bank there came another permanent way check, so that we took 26 min. 11 sec. to clear Finningham from Ipswich, 17.9 miles. Then *Lord Hurcomb* was given his head, and we swept up quickly to 82 m.p.h. before Diss, where there was a momentary slowing to 71; then came 75 before Burston, but a signal check at Tivetshall, for no apparent cause, brought us down to 55. For the 31.8 miles from Ipswich we had taken 38 min. 46 sec., instead of the 35 minutes allowed. From here on, there was some inexplicably poor running; the tempting downgrades produced nothing higher than 72 m.p.h., and both before and after Flordon speed fell to 58 m.p.h. when it should have been much higher. As a result, and with the dubious aid of another brief signal check, outside Norwich, we actually lost time on the last stage, taking in all 56 min. 27 sec. for the run from Ipswich, instead of the 51 minutes allowed, and arriving 5½ minutes late. Net time was probably nothing more than schedule, but it was an indifferent finish to a run which had opened so magnificently.

I did not have long in Norwich—to be precise, no more than *thirty-two seconds!* For I had planned to arrive at Thorpe at 2.40 p.m. and to return at 2.45 p.m., and as it was half-a-minute after the starting time of the latter train when we crawled to a stand, my chances were slender. Fortunately, however, the authorities had been considerate enough to run us to the opposite side of the platform at which the 2.45 p.m. was standing, and the latter could not start until we had cleared the platform points. So, as I say, I had a modest 32 seconds to walk across the platform and catch my return train. What the platform staff could have thought of this remarkable manoeuvre I have no idea!

The 2.45 p.m. up has a buffet car instead of restaurant cars, and as a result our load was even lighter—a mere plaything of seven bogies, or 240 tons in all, for Pacific No. 70002 *Geoffrey Chaucer*. With so light a train, the work as far as Ipswich was no more than moderate: it took us 19 min. 21 sec. to get up to Tivetshall, 13.5 miles, instead of the 18 minutes allowed, but with a top speed of 77½ m.p.h. before Diss, and a minimum of 56½ up the rising grades to Finningham, we had picked up the lost 1½ minutes by Haughley. The engine was slowed to 60 m.p.h. through Stowmarket, and had a signal check outside Ipswich, but completed the run of 45.3 miles in 50 min. 48 sec.

Our restart from Ipswich was so leisurely that I wondered at first if any effort was going to be made at all; *Geoffrey Chaucer* meandered up the 1 in 125 to Belstead at 32 m.p.h., taking 8 minutes to clear the summit at milepost 65, 3.7 miles away. And although 69 m.p.h. was touched down past Bentley, this was soon cut short by the slowing to 20 m.p.h. over the Stour bridge. But now the fun really began. The engine's nose was put at the 1 in 134 climb from Manningtree to such purpose that in 2¼ miles we actually accelerated to 51 m.p.h., a feat without parallel on this bank, in my experience. A top speed of 71½ m.p.h. approaching Colchester was moderated to 50 round the curve, and then came some further fine climbing, of Lexden bank, so that we had reached 56½ m.p.h. on passing the crest, at Stanway.

There was some glorious travelling from here; 71½ m.p.h. at Marks Tey and on to Hill House, 77½ by Witham, 69 at Ardleigh, and no less than 79 after Hatfield Peverel, were the ensuing speeds. Indeed, the 16.9 miles from Marks Tey to Chelmsford were run in 13 min. 45 sec., at an *average* of 73.7 m.p.h. After recovery from the Chelmsford slack, again, the whole of the long rise to Shenfield was covered at a steady 64-68 m.p.h., until a long blast on the whistle

heralded the fact that unhappily we had caught up the Clacton train which had a margin of no more than 3 minutes into Liverpool Street ahead of us. We had run 35.8 miles from Ardleigh to Shenfield, both Colchester and Chelmsford slowings included, in 31 min. 52 sec., and passed Shenfield, 48.5 miles from the start, in 50 min. 54 sec., or 48½ minutes net (" even time ").

This, alas, was the end of all interest. Signals now dogged our path, and all the way inwards from Stratford we were crawling from yellow to yellow, finally being stopped at Bishopsgate before we could gain admittance to No. 9 platform at Liverpool Street. This made the arrival all but 10 minutes late, and the overall time from Ipswich 84 min. 56 sec., but having passed Shenfield in 48½ minutes net, we ought easily to have finished the run in 72 or 73 minutes, given a clear road, instead of the 77 minutes allowed.

A number of records of running on the new summer timetables over this route have come to hand from correspondents, and from these it is evident that present-day running over the Great Eastern Colchester main line, when clear of the steepest gradients and of service slacks, can rank in speed with that of some of the highest speed routes in the country, such as Darlington-York, N.E.R., Basingstoke-Surbiton, S.R., and others, on which sustained speeds well exceeding 70 m.p.h. on the level are a commonplace. Certainly any recorder of locomotive running who likes to take a ticket from Liverpool Street to Ipswich and back will find his expenditure well worth while.

BRADFORD EXCHANGE

An Unusual Terminus

BY HAROLD RICHARDS

BRADFORD Exchange is really two terminal stations in one, for, although the layout comprises 10 platforms, there is no physical connection between the lines of platforms 1 to 5 and those of 6 to 10, in spite of the fact that the whole station and track is under the control of one signal cabin. Platforms 1 to 5 are occupied by the trains of the former L.M.S.R. and 6 to 10 by those of the former L.N.E.R. After the 1923 grouping, most of the commercial working of the station became vested in the L.M.S.R., although the L.N.E.R. maintained its own separate Booking Office until January 1st, 1940, when this was closed down and a new and modern booking office staffed by the L.M.S.R. became responsible for all bookings from the station. Following the revision of the B.R. Regional boundaries in April, 1950, the whole station is now under the control of the North Eastern Region. It has been repainted entirely in the tangerine colours of the N.E.R., with a cream and green background, but to most Bradfordians it is still known as either the " Lancs. & Yorks." or the " Great Northern." Indeed, from the viewpoint of train movements, though not of motive power, there is very little difference between the scene to-day and in the pre-grouping age, when one section housed the Lancashire & Yorkshire and the other was the stronghold of the G.N.R.

Immediately on leaving the station, the *ex*-L.M.S. and L.N.E. lines run alongside each other for nearly half a mile until the latter diverges sharply to the left and enters St. Dunstan's station, whilst the former continues straight ahead up a rising incline to Bowling Junction Station, and into Bowling Tunnel. Just before the two routes part company there is a point where trains could be crossed from one set of rails to the other. This is at Mill Lane Signal Box (L.M.R.), but the crossover rails are black with disuse, and seldom, if ever, function.

The main departures from the Eastern side are to King's Cross, and most of these trains, including the " Yorkshire Pullman," start from Platform 6. With the exception of the " Yorkshire Pullman," they are worked to Wakefield, usually by " B1s," and join up there with a portion from Leeds. The Bradford section of the " Yorkshire Pullman" works direct to Leeds Central, via Stanningley, where it joins up with the Harrogate portion. There is also a busy local service to Leeds Central via Pudsey and Stanningley, to Dewsbury and Wakefield, and over the Queensbury branch line, these workings are largely in the hands of Class " N1 " 0-6-2 tanks.

On the London Midland side of the station the most important workings are those to Manchester (Vic.) and Liverpool (Exch.); sometimes these trains are banked as far as Bowling Junction by the engine which brought in the empty stock. There are also through workings daily to Blackpool, Southport and Stockport; Stanier Class "5" 4-6-0s are the usual engines on these trains. The traffic is completed by a fairly intensive local service to Halifax, over the Cleckheaton branch, and to Huddersfield, almost entirely in the hands of Stanier Class " 4 " 2-6-4 tanks. The most unusual departure is the 10 a.m. " South Yorkshireman " to London (Marylebone), the only through working of the day from Bradford to Marylebone. The train runs via Low Moor, Huddersfield, Penistone, Sheffield and the former Great Central Line to London, and is composed of *ex*-L.N.E. stock, although the locomotive is a Class " 5 " 4-6-0 from Low Moor Shed; this works as far as Sheffield (Vic.), where an E.R. " B1 " or " A3 " takes over to Marylebone; a similar engine change takes place on the return journey, due into Bradford at 10.10 p.m.

Immediately on leaving the station the tracks pass underneath a road bridge which carries the Bradford-Wakefield road, and the signalbox is situated on the other side of this bridge. The track lay-out of both routes is almost identical, for the lines from both sets of platforms converge into up and down running lines, connected by scissor crossings that enable trains to run into any platform on their side of the station. Both routes have a long carriage siding situated between the up and down tracks.

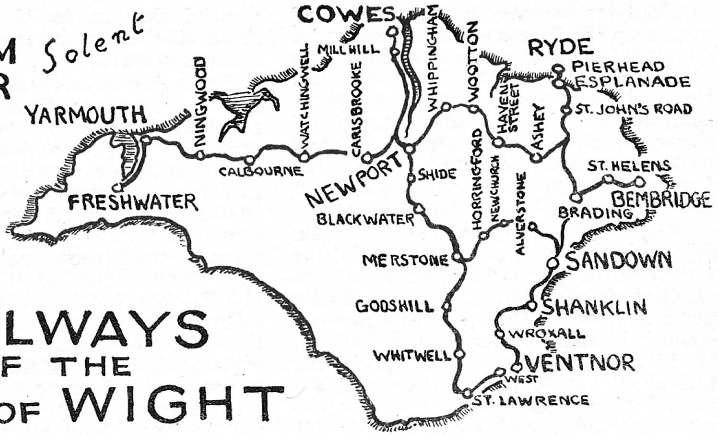
An unusual method of dealing with empty stock is employed in both sections of the station. From the platform ends the lines rise sharply up a stiff gradient, and when a train has arrived in the station, and the carriages are required for another working, the engine pushes the stock back up the gradient, uncouples from the coaches, and runs back into a spare bay: whereupon the guard releases the brake on the carriages and allows them to run back under their own momentum into the required platform.

The sheds responsible for the majority of the locomotive workings are Bowling (37C) for the Eastern Region, and Low Moor (25F) for the London Midland Region. There are 114 departures daily from the Station (70 from the Eastern side and 44 from the L.M. side) and a similar number of arrivals.

BERTRAM C. VIGOR

describes the

RAILWAYS OF THE ISLE OF WIGHT



VECTIS, better known to holiday-makers as the Isle of Wight, is the home of a standard gauge system of railways now controlled by the Southern Region of B.R., but laid out originally by three separate companies. The S.E. coast of the island, with its well-known resorts of Ryde, Sandown, Shanklin and Ventnor, was first exploited by an organisation describing itself as "The Isle of Wight Railway Company," whose system was opened in three sections, from Ryde to Shanklin, then Shanklin to Ventnor, and finally the branch from Brading to Bembridge. Between 1864 and 1883 it acquired eight tank locomotives, seven of them attractive little 2-4-0s built by Beyer, Peacock & Co., and the eighth, a small 0-6-0 saddle tank of Manning Wardle origin, taken over from the contractor who constructed the Bembridge branch. The engines were not numbered, but each was named after places served by the company. *Ryde,* which dated back to 1864, gave 68 years of faithful service before being withdrawn, after which, unhappily, she was broken up. The passenger stock, originally comprising only four-wheeled vehicles of sometimes boisterous riding qualities, was later augmented by some eight-wheeled non-bogie stock obtained from the Metropolitan Railway that raised the standard of comfort to a marked degree. The engines and carriages, all fitted with Westinghouse brakes, were maintained at the company's Ryde Works, where the goods rolling stock was also serviced.

From Newport there radiated the lines built by the "Isle of Wight Central Railway Company," by which one could travel direct to Cowes, Ryde, Sandown or Ventnor, though to enter Ryde the I.W.C.R. exercised running powers over the I.W.R's. tracks beyond Smallbrook Junction, just south of Ryde, and a similar arrangement at Sandown obviated the building of a second station at that town. At Ventnor, however, the I.W.C.R. approached from the west and in consequence built its own terminus, known as Ventnor Town, about a mile from the Ventnor Station of the I.W.R. The locomotive stock of the I.W.C.R. comprised tank engines of 4-4-0, 2-4-0 and 0-6-0 wheel arrangement, the last-mentioned ex-L.B. & S.C.R. "Terriers." Its passenger vehicles were four-wheeled, with suitable goods stock to meet the needs of a route that served the industrial parts of the island. The locomotive, carriage and wagon works alongside the station at Newport dealt with repairs and maintenance, and a certain amount of rolling stock was actually constructed there. Westinghouse braking was provided on the I.W.C.R. trains.

The last and smallest of the three companies was the Freshwater, Yarmouth & Newport Railway. It depended for motive power and rolling stock upon its more prosperous neighbour, the I.W.C.R., under an agreement which was brought to an abrupt conclusion by a dispute between the two concerns in 1913. The F.Y. & N.R. was then forced to fend for itself. Not only did the I.W.C.R. withdraw its locomotives and rolling stock; it forbade the F.Y. & N. to use the I.W.C. station at Newport, which necessitated the hurried building of an independent terminal nearby. Two locomotives, one a 0-6-0 saddle tank and one a "Terrier" tank, sold by the L.B. & S.C.R. to the L.S.W.R. some years previously, were purchased, together with some four-wheel passenger coaches from railways on the mainland; with these the F.Y. & N.R. continued to maintain its services. The inevitable financial crash followed and thereafter

affairs were managed by a Receiver.

At the 1923 grouping, all three companies were merged into the Southern Railway, which very soon turned its attention to improving travel facilities both to and about the island. Naturally, much of the early rolling stock, already well past its prime, was condemned and by nationalisation not a survivor of pre-grouping days remained. However, one may identify traces of pre-grouping ownership in the station buildings and in monograms worked into the masonry or steel work, whilst differences in signal design are also apparent.

Crossing from Portsmouth in one of the Southern Region ships, the traveller from the mainland lands at Ryde Pierhead, from which a covered way leads to the four-platform station. On summer Saturdays its capacity is taxed to the utmost and all four roads are frequently occupied by trains, which in a few moments are loaded with a bustle reminiscent of London suburban services as each ship disembarks its passengers, while equally packed arrivals are disgorging their cargo. Very noticeable amid the hubbub is the sound of the Westinghouse donkey pumps on the engines, for the automatic compressed air brake is standard on the island system.

At the Pierhead the visitor will probably observe nothing but ex-L.S.W.R. Class "O2" 0-4-4 tanks. Despite their age, these engines cope with the entire passenger traffic, which entails haulage of heavy trains over lines bristling with sharp curves, heavy gradients and whose stations are often little more than a mile or so apart. The brakes on the engine, actuating on the coupled wheels only, are operated by vertical brake cylinders and ball cranks on each side of the frames just forward of the trailing bogie. The coal capacity has been increased by extending the upper portion of the bunkers beyond the frames, whilst some of the engines have low-pitched siren whistles similar to those of the old Caledonian Railway.

A glance at the coaching stock reveals its p r e - g r o u p i n g origins. The ex-L.S.W.R. and ex-S.E. & C.R. vehicles are recognisable by their flattened elliptical roofs, but whereas the former have short vertical commode handles, those of the latter are right-angled. The remaining carriages are either ex-L.B.S.C.R. or ex-L.C. & D.R. and both have roofs contoured in one radial sweep. Long vertical commode handles distinguish the Brighton coaches from the Chatham and Dover, which have short vertical commode handles and squared corners to the windows. There is no corridor stock, but a few saloon-type coaches can be seen, from which one can enjoy the scenery to good advantage. A number of ex-L.S.W.R. bogie luggage vans facilitate the conveyance of vast quantities of passengers' luggage during the holiday season.

Leaving Ryde, the four tracks of the station merge into up and down roads near the signal box, leading to Esplanade station, beyond which the line descends to twin tunnels passing beneath the esplanade and a portion of the town. Out in the open again, it traverses industrial Ryde to reach St. John's Road station, the terminus until the joint efforts of the L.B.S.C. and L.S.W. Railways resulted in the opening in 1880 of the Pierhead extension. The Repair Shops stand to the east of the station, with the running sheds and goods yard on the opposite side of the line. Here one of the ex-L.B.S.C. Class "E1" 0-6-0 tanks, four of which cope with the bulk of the freight traffic, may be at work. The island's goods rolling stock is of orthodox design; some vehicles are piped for continuous braking, enabling mixed trains to be run as and when required.

Past carriage sidings, the line soon approaches Smallbrook Junction, where the double tracks diverge to form the single line branches to Sandown and Newport, each under normal train staff control. The line from here to Brading climbs through thickly wooded country, but once over the summit trains accelerate rapidly as the country opens out, sweeping down the bank and round a sharp curve into Brading station, junction for St. Helens and Bembridge. The Bembridge train—an "O2" with two bogie coaches, the engine running bunker first on the outward journey, occupies a bay platform at Brading. Its short $2\frac{3}{4}$-mile journey is a tortuous one across the marshes, through a one-platform intermediate station, St. Helens, past sidings spreading themselves alongside Bembridge Harbour, to the one-platform Bembridge terminus, which boasts the island's one and only turntable at the seaward end of the run-round loop. (Water is taken from a somewhat primitive crane at Brading). According to the public timetable, only four minutes separate the arrival and departure times of certain trains, suggesting smart work by all concerned.

South-westward from Brading the line is double track to Sandown, a three-platform station to which we shall return shortly, where it is joined by the cross-country line from Newport. For the engine, the collar work has begun and it continues with more or less unbroken severity, over single line once more, although a short stretch of down gradient offers a welcome breather just before

Shanklin, where a two-platform station like its neighbour, Sandown, deals with extremely heavy traffic during the season, for these two resorts are among the most popular on the island. Shortly after leaving Shanklin the line turns inland and climbs steeply through Wroxall, site of a passing loop, to a summit at the mouth of a ¾-mile tunnel, from which it emerges with quite disconcerting suddenness in Ventnor station.

This is the terminus of the branch, no more than 12½ miles from Ryde Pierhead, but the frequency of stops, heavy gradients and single line working over much of the branch demands an overall allowance of 42-50 minutes; even that is harder to achieve in practice than on paper. Ventnor station has three platforms, two of which serve one road, thus two roads only are available for passenger traffic. Carriage sidings and the goods yard complete the layout, which is situated on a ledge carved out of the side of St. Boniface Down, the highest elevation on the island. From the upper slopes of this hill one can obtain remarkable bird's eye views of the station, the town and the Channel.

Returning to Sandown, the Newport trains start from the outer face of the island platform there, running straight into a sharp and very nearly horseshoe curve, then through a broad, rural valley and the little stations serving Alverstone, Newchurch and Horringford to Merstone, 5¼ miles from Sandown, crossing-point for the cross-country trains and the junction for the branch line to Ventnor West. A trip on this branch should not be missed. From the loop platform, the train begins to climb almost immediately—after rounding the inevitable sharp curve—and the hill country of the island is revealed in ever widening panoramas. It calls at two halts — Godshill and Whitwell — before entering a tunnel, beyond which is St. Lawrence Halt, serving the western extremities of Ventnor. A final run of 1¼ miles sees the train to journey's end at Ventnor West station, which comprises a single platform, a signal box and small goods yard. The use of ex-L.B. & S.C.R. "Terrier" tanks on this service (see May issue, p. 156) is now a memory, for the three which shared the duty until two or three years ago have been recalled to the mainland.

Newport, the "capital" of the island and converging point for four lines—from Ryde, Sandown, Cowes and Freshwater respectively—naturally has quite a sizeable station. There are three through platforms and a bay used by short trains for Cowes or Freshwater. Locomotive sheds and carriage sidings stand to the east of the station, the west side of which is occupied by the goods yard, where one can usually find the elusive "E1" 0-6-0 tanks shunting, and the station approach. Two signal boxes, north and south, control movements.

From Newport to Freshwater, a tentacle of the island system extends a distance of 12 miles through rather sparsely populated countryside. Financial conditions demanded that this line should be constructed with the minimum of expenditure and as a result it goes up hill, down dale, twisting and turning to keep to the valleys as far as possible. Furthermore, it was found impossible to construct a facing junction with the Newport - Cowes branch; Freshwater trains, therefore, have to reverse before leaving or arriving at Newport. Between Newport and Carisbrooke Halt the line traverses a viaduct and shortly afterwards, to the left, the traveller enjoys a magnificent view of the ruins of Carisbrooke Castle. See-saw gradients and sharp curves predominate thereafter, past Calbourne, Shalfleet, Ningwood, where passing facilities are provided, to Yarmouth, from which the ferry service to Lymington on the mainland is operated. A further two miles, part of which lies alongside the River Yar, brings the train to the tiny terminal at Freshwater. Here the one platform, since it was lengthened some years ago, shelves oddly from standard height at its outer end to an unusually low level towards the barrier. Crossovers and a loop road, controlled from a small signal box, enable the engine to run round. During the summer months certain through trains are run between Ventnor or Sandown and Freshwater, non-stop between Sandown and Newport and Newport and Yarmouth. Both "hops" are 10 miles in length and the longest booked non-stop runs in the island. The entire 27¼ miles from Ventnor to Freshwater are covered by these through trains in 76 minutes—no mean achievement when one recalls that the line is single throughout, to say nothing of the reversal outside Newport.

Two lines remain to be described, one the 4¼-mile route from Newport to Cowes, with one intermediate station, which for some of the way overlooks the River Medina, with its wharves and shunting activities. Cowes, served by two platforms, and famous the world over as the headquarters of the Royal Yacht Squadron, is also an industrial centre, with shipyards and aircraft factories alongside the river. Finally, one can travel from Cowes back to Ryde via Newport, for from the latter station a branch diverges from the Sandown line at the south end to enter a short tunnel. Trains call at Whippingham, Wootton

and Haven Street, the last named an island platform station with staff exchange facilities for up and down trains, and Ashey before reaching Smallbrook Junction, some 12 miles from Cowes, where the train staff is surrendered as the train enters the double track section for the remainder of the run to Ryde Pierhead. The traveller who cares to sample every stage of the routes and branches we have described will find he has covered some 90 route miles at the end of the tour. In the summer months, indeed, such a comprehensive journey over the entire system can be accomplished quite comfortably in a day.

THE

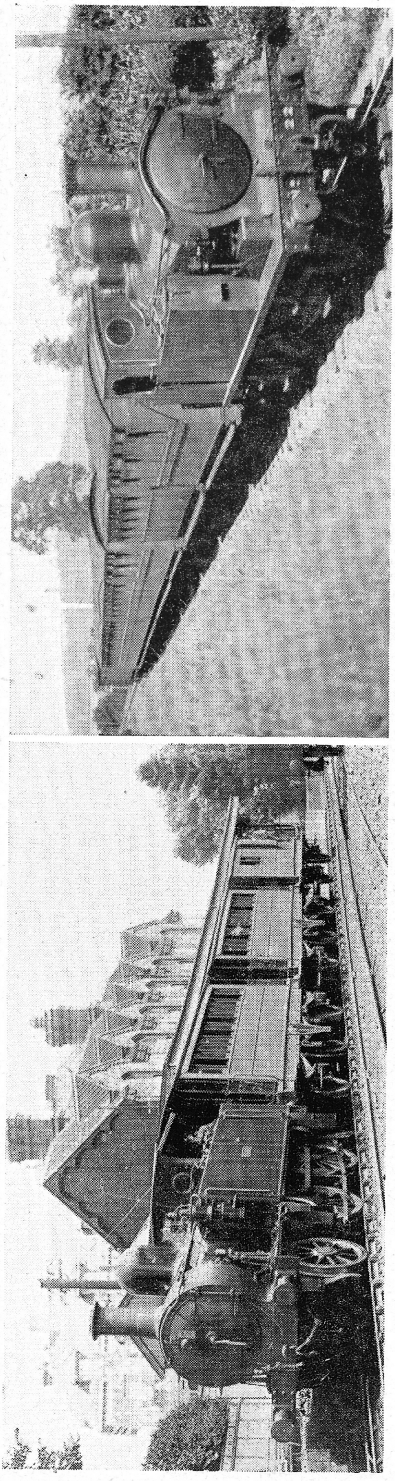
WELSHPOOL & LLANFAIR

LIGHT RAILWAY

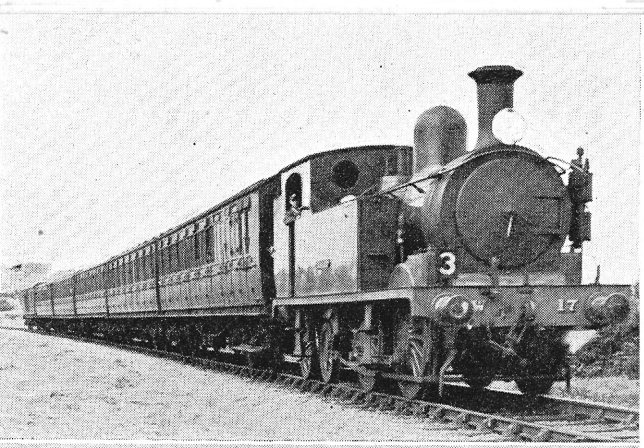
THE 2 ft. 6 in. Welshpool & Llanfair Light Railway, now threatened with complete closure, was built to open up the remote but beautiful Welsh valley of Caereinion to the "outer world." Authorised in 1899, construction commenced the following year and the 9-mile line was opened to goods traffic on March 9, 1903, to passenger traffic a month later. Total cost of construction and rolling stock was £47,900, but over half the required land was donated by its owners. One important shareholder gave some land that was superfluous; rather than appear ungrateful, therefore, the company obligingly diverted their line just beyond Castle Caereinion hall to take advantage of his generosity!

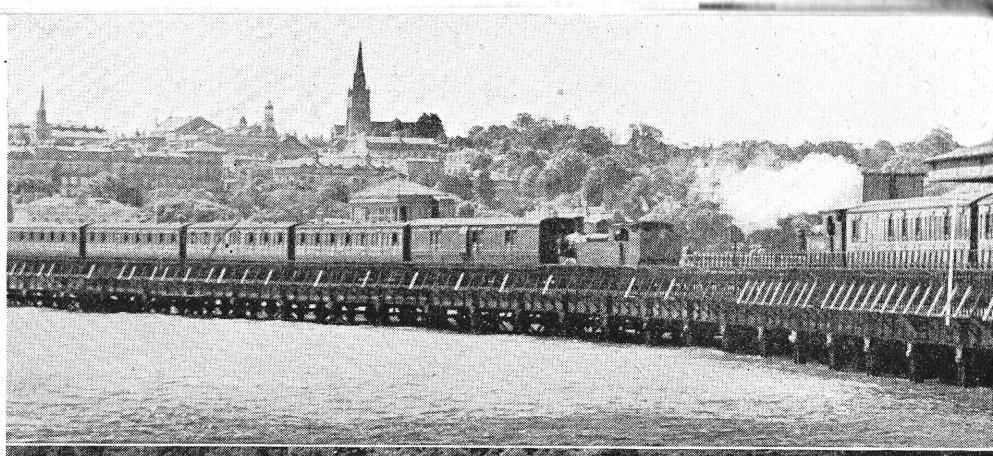
Welshpool lies in a rather narrow valley at right angles to the Severn. If the line had circled the town, it would have been forced to mount the side of the valley, a costly undertaking. Luckily, it was able to follow the Sylfaen brook through Welshpool, straddling it on a continuous bridge without disturbance of private property. Even so, costs were above the estimate, and the Treasury had to make a second grant and loan, while expenditure on legal battles with the contractor caused a cut of £2,000 in the original rolling stock programme.

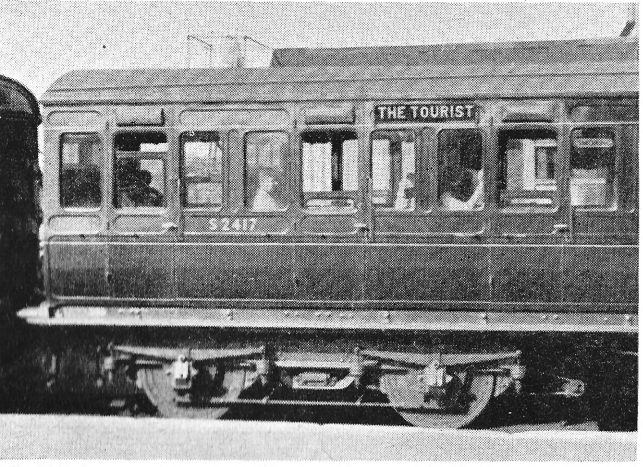
Under the terms of its Act, the W. & L.L.R. was compelled to make a 99-year agreement with the Cambrian Railway, whereby the latter worked the line for 60 per cent. of the gross receipts, covered liabilities from accidents, renewed rolling stock and introduced through fares from its own lines, the

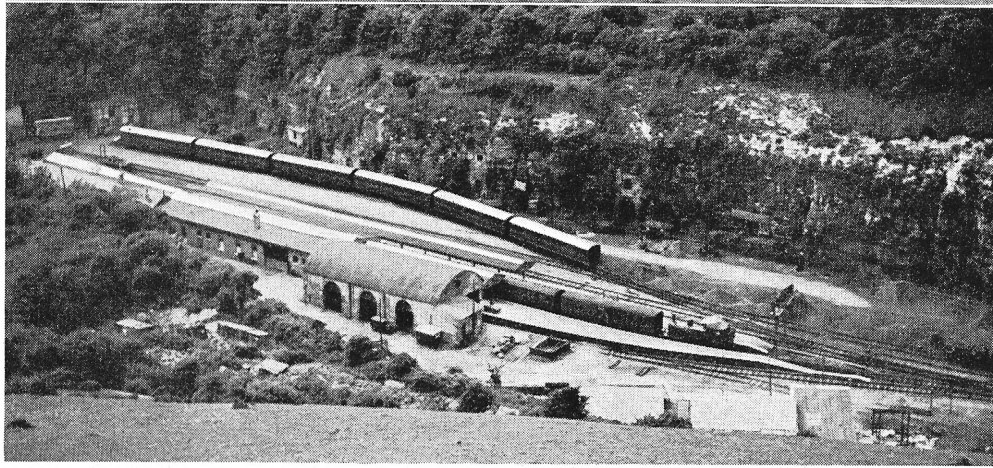


EARLIER DAYS ON THE ISLE OF WIGHT—*Left*: A Beyer Peacock 2-4-0T at Bembridge. *Right*: S.R. "O2" 0-4-4T No. 22, before modification, on a Ryde-Ventnor train including at the rear some ex-Metropolitan 8-wheeled carriages. *[H. Gordon Tidey*









SCENES ON THE ISLE OF WIGHT

Top left: A typical present-day train—Class "O2" 0-4-4T No. 17 *Seaview* near Sandown with a train for Ventnor. *Top right*: Ryde Pierhead. *Bottom left*: For the first time since the war through services were restored in the 1951 summer between Ventnor (dep. 10 a.m., arr. 6.42 p.m.) and Freshwater (arr. 11.16 a.m., dep. 5.20 p.m.), and the title "The Tourist" has been bestowed on the trains concerned. *Bottom right*: Birds-eye view of Ventnor main station from St. Boniface Down. *[E. R. Wethersett, S. C. Townroe, N. W. Davis, G. J. Jefferson*

last-named a practice continued by the G.W.R. from 1923. The light railway was in financial difficulties from the start. By 1908, it was forced to beg a temporary release from the repayment of local authority loans, but it struggled on until 1923, when both it and the Cambrian were absorbed by the G.W.R.

For some time, G.W. motorbuses, on services now operated by Crosville, supplemented the trains, finally proving so much more convenient that passenger trains were withdrawn on Feb. 7, 1931. The carriages, at first Cambrian bronze green and white, later G.W. chocolate and cream, were scrapped at Swindon; they were three 37-ft. bogies with observation platform ends, two composite and one third, with longitudinal seats and upholstery confined to the first class accommodation. The guard dispensed tickets on the train, though booking offices existed at Llanfair and Seven Stars Halt. Thereafter, the staff declined to a main line driver and fireman-cleaner, changed every week or so, a semi-permanent guard, a gangman and two platelayers, and, at Llanfair, a stationmaster and woman porter.

The line's two engines, identical Beyer Peacock 0-6-0 tanks, built in 1903, were named *The Earl* and *Countess* after the Earl and Countess of Powis, of whom the former was first chairman and promoter of the company. Now in W.R. green (as opposed to the former Cambrian black with red and yellow lining) and Nos. 822/3, they have a very short firebox whose width overlaps the frames; they were designed to haul 40 tons up the W. & L.R's. steepest gradient of 1 in 30, and cost £1,600 apiece. The line's financial troubles cancelled the original plan to buy a third engine and a travelling crane. Forty-six wagons, numbered in the W.R. series and painted grey, and 2 brakevans complete the original rolling stock, to which the Cambrian and G.W.R. added an additional 14 vehicles; several of the wagons were rebuilt by the G.W.R. at Oswestry after 1923. In addition, a Llanfair coal merchant operates 5 private wagons and a 3½ h.p. petrol platelayers' inspection trolley is in service. All the rolling stock is provided with central buffers, the engines with combined buffers and couplers. Vacuum brake is fitted to the engines (and on the erstwhile passenger coaches) and brake vans, and the latter are also equipped with powerful screw brakes.

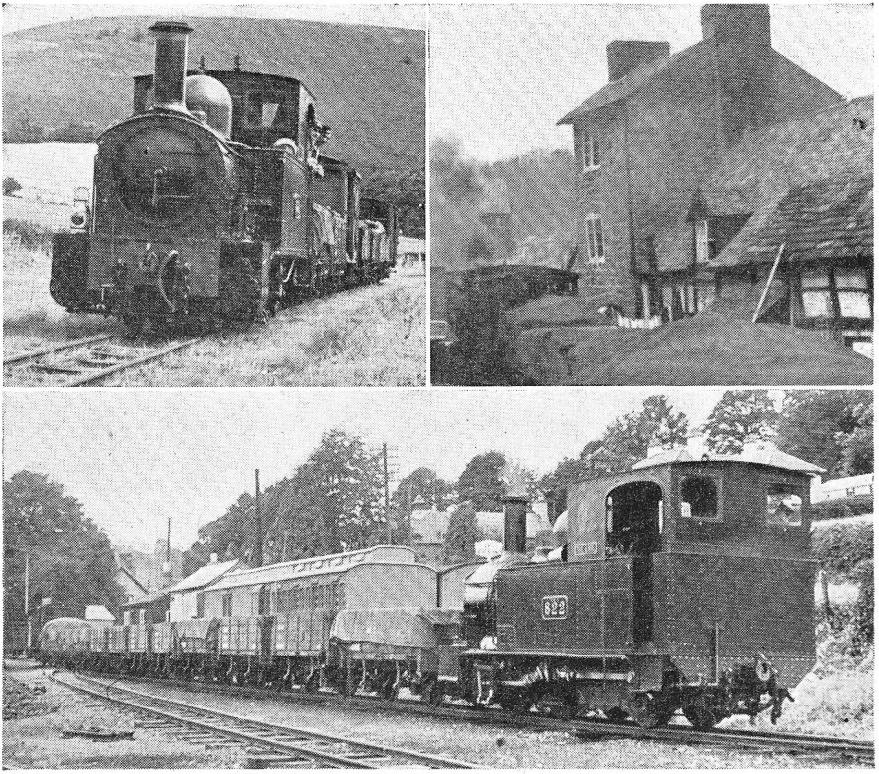
At Welshpool station, W.R., on the Shrewsbury-Aberystwyth line, a narrow gauge line runs parallel to a bay. After formation in the W. & L.L.R. yard, the light railway train picked up its passengers here from Western trains. Thirty yards away, the 2 ft. 6 in. track branches, one fork running parallel to a W.R. goods siding to end in a stone cattle dock. The other crosses a road into the narrow gauge yard, where it links up with a line from the engine shed.

Just beyond the yard, the line climbs steeply to a steel bridge spanning the derelict Shropshire Union canal and, beneath the canal, the Sylfaen brook. Skirting the streets of Welshpool, it reaches a level crossing over the main Shrewsbury-Welshpool road, where the fireman descends to guard his train with a red flag as it crosses the road. The line now mounts the continuous bridge over the brook to arrive at Seven Stars halt, where the office and waiting room are now the home of an undertaker. Leaving the bridge, the track wends its ascending way between the gardens of private houses to Raven Square halt, beyond which, across the Welshpool-Llanfair road, lies the long tortuously winding climb of 2¼ miles to the summit beyond Golfa, threading a narrow valley between 1,000 ft.-high hills, at a gradient as steep as 1 in 30 for a mile of the way.

At Golfa halt a corrugated iron waiting shed, typical of the "station buildings" at all the halts, once faced a passing loop, whose point lever boxes are proudly named Heniarth East and Heniarth West, but one pair of points has been removed. More amusing still, Castle Caereinion halt boasted a signal box (closed in 1931), for its loop, though no signalling equipment has ever been in use, for the W. & L.L.R. has always operated on the "one-engine-in-steam" principle. Before Castle Caereinion, the line reaches its summit, 600 ft. up, after a climb through beautiful w o o d e d country to Sylfaen Halt, whereafter the descent is straight and lengthy, but has to be negotiated with caution. Dolarddyn is a noted beauty spot, and after Cyfronydd halt, where there is a siding in the form of a loop, the line traverses the massive Brynelin stone viaduct which added considerably to the costs of construction. The three-span girder bridge over the Banwy river tops the slight climb to Heniarth halt, site of another siding loop, whereafter the track, climbing for the most part, follows the course of the stream to Llanfair Caereinion, an important market town with a population of 2,000, though the station is some way from the centre of it. The layout consists of a loop and two lengthy sidings, while the station buildings are the most imposing of any on the layout.

THE W. & L.L.R. IN 1951

In order to see the working of the branch under everyday conditions, and to make what might prove to be a final visit to it, I travelled over the narrow



SCENES ON THE W. & L.L.R. *Top left*: 0-6-0T No. 822 in the open country near Golfa. *Top right*: Threading its way between the houses on Welshpool's outskirts, a train sets off for Llanfair. *Bottom*: No. 822 and train at Llanfair. The coaches forming the station stores were transported to Llanfair, minus their bogies, on W. & L.L.R. timber trucks. Beyond are the booking office and waiting room. *[H. C. Casserley (2), O. H. Prosser*

gauge by brake van on April 2nd. We had previously obtained permission from the Western Region authorities and, in accordance with instructions received, called first on the station master to sign indemnities over 6d. stamps. Owing to the heavy market day traffic, an early run up the line had been made at 8.0 a.m., so the midday train left at 12.30 instead of its usual time of 11.30. Seven sheeted wagons loaded with coal and fertilizer and the van comprised the train, which was hauled by No. 823, from which the maker's plates and name plate *Countess* have been removed pending closure. There is still a considerable goods traffic, chiefly of coal and such heavy commodities as builders' materials to Llanfair and stone and timber from the district. There is also a considerable amount of cattle traffic in both directions, especially on Mondays, Welshpool's market day.

It was a rainy day, so the load proved more than our engine could manage up the 1 in 30 to Golfa without reduction of speed to walking pace and a great deal of slipping. The rest of the journey proved uneventful and we reached the outer terminus in 52 minutes non-stop. Llanfair station yard was full of wagons being unloaded after coming up on the earlier train; one could see how varied are the commodities carried to this point, which is evidently a railhead for a considerable stretch of country.

Shunting occupied 50 minutes and then we set off back in the company of the three railwaymen who are responsible for maintaining the track, which is well kept and a credit to them. We took back two full cattle vans and five empty wagons, the journey taking 2 minutes more than the outward run, as we stopped for water near Llanfair.

The line seems very busy, but no doubt its future depends on the relation of receipts to operating and maintenance costs. I recommend readers, therefore, to make the same pleasing brakevan journey for a 2s. 6d. return fare as I did, while opportunity offers. Application for permission to travel over the Welshpool and Llanfair branch should be made to the Public Relations Officer, Paddington Station. **O. H. PROSSER.**

"C. J. speaking"

A PERSONAL COMMENTARY BY CECIL J. ALLEN

TO some of us there are few countries in Europe that provide so perfect a tonic for jaded spirits as Switzerland. After the interruption of the war, in 1948 I resumed what had become an annual visit to that delightful country, and I have just returned from the fourth post-war Swiss trip, more demoralised than ever when it comes to picking up the threads of work once again.

This year our first five days were spent in a part of Switzerland—the north-east—which is seldom visited by the British tourist. With the High Alps so near at hand, this is not perhaps surprising, but both from the point of view of scenic and of railway interest I should have been very sorry to have missed our stay in the lovely city of St. Gallen. It is on the main line of the Swiss Federal Railways from Zurich to Rorschach—a port on the nearby Lake of Constance—but it is also served by two other most interesting lines, the standard gauge Bodensee - Toggenburg and the metre-gauge St. Gallen-Gais-Appenzell line.

The Bodensee-Toggenburg is a prosperous little company whose main line starts at Romanshorn, also on the Lake of Constance, climbs into St. Gallen, and then continues up into the heart of the most beautiful Toggenburg country. A mile or two west of St. Gallen it reaches the deep gorge by which the Sitter river makes its way northwards to Constance, and across this the engineers have thrown one of the most startling bridges I have ever seen. A short length of masonry viaduct on each side carries the trains to the bridge proper, the piers on both sides of which tower up from the river level to a height of 330 ft., supporting a central inverted bowstring truss span of steel 394 ft. across.

I made a couple of expeditions to look at the bridge from below, and it seemed almost unbelievable! Actually it is but one of three outstanding bridges which cross the gorge within a short distance of one another; the second is the very high masonry viaduct of the Swiss Federal, and the third is a magnificent new reinforced concrete viaduct, with one huge centre arch, built recently to carry the main road.

The Bodensee - Toggenburg is concerned in a most interesting railway link-up which provides a direct route, and scenically much the most delightful route, between St. Gallen and Lucerne. The 2-mile Wasserfluh tunnel brings the B.T. into Wattwil, where it joins a line of the Swiss Federal that then dives into the much longer 5-mile Ricken tunnel, descending steeply to Rapperswil, on the east shore of the Lake of Zurich. From here the trains pass on to another independent railway, the South Eastern (S.O.B.) which runs across the lake on a causeway, and then climbs over the high ground between the Lakes of Zurich and Lucerne up grades as steep as 1 in 20.

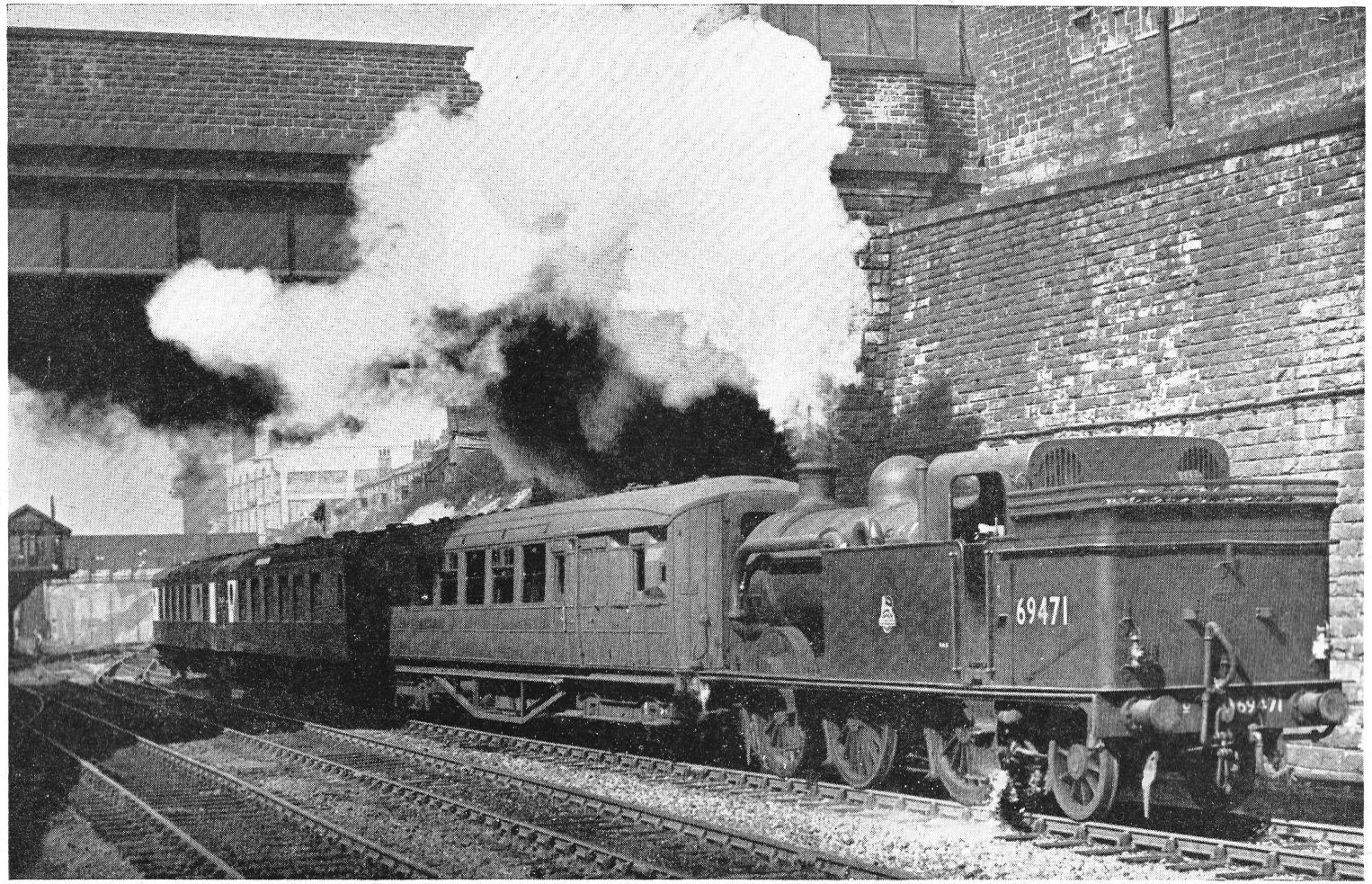
At its western end the S.O.B. drops down into Arth-Goldau, joining there the Gotthard main line of the Swiss Federal, over which the journey to Lucerne is completed. Comfortable corridor trains are run, a mixture of B.T., S.O.B. and Swiss Federal stock, and the best of them including some buffet refreshment cars of which the Bodensee-Toggenburg is justifiably proud: the latter's powerful electric locomotives work through into Lucerne.

Talking of buffet cars, the most amazing example I saw was on the little Appenzell Railway, which includes such a car in a little three-car metre-gauge train plying between Gossau, on the Swiss Federal Zurich-St. Gallen main line, and Wasserauen, favourite climbing centre in the great Säntis group of mountains which fringe the southern side of the Canton of Appenzell. Every day the little car makes six trips over the 21-mile line, calling at all stations, and one Swiss *madchen* presides smilingly over it, serving, and, if necessary, cooking all that is needed. The buffet forms the centre section of a third class coach.

The Säntis, 8,215 ft. high, provided us with one of the most memorable experiences of our stay. The north face of this mountain thrusts upwards as a sheer rock wall from the high ground at Schwagalp, and to the top of this wall there have been swung up from Schwagalp the cables of one of the most daring suspension lines on which I have ever travelled. This first span is no less than 3,150 ft. without any intermediate support, and as one approaches the top of it, the nearest land is a modest trifle of 500 ft. below the floor of the little car in which one is riding!

Although I am very familiar with Central Switzerland, another recently-built line was new to me; it is a funicular or rope-worked railway that whisks passengers up from Schattli, near the old town of Schwyz, to an eminence known as Stoos. When I first looked at the wooded slope up which this line has been built, I dismissed the site as quite impossible until my wife pointed out to

[Concluded on page 317


69471

Facing Page: The Bradford portion of the "Yorkshire Pullman," plus an ordinary coach for non-supplementary fare paying passengers to Leeds, passes Laisterdyke Junction en route for Leeds behind "N1" 0-6-2T No. 69471.

Above: W.R. "Castle" 4-6-0 No. 5023 *Brecon Castle* climbs the 1 in 60 out of Par with the down "Cornish Riviera Express."

Left: A china clay train arrives at St, Blazey. Cornwall, after descending the 1 in 40 bank from Luxulyan. Double-heading the train are "4500" class 2-6-2Ts Nos. 4549/69 (25/6/51) *[Overend Press Agency, B. A. Butt (2)*

PICTURE PARADE

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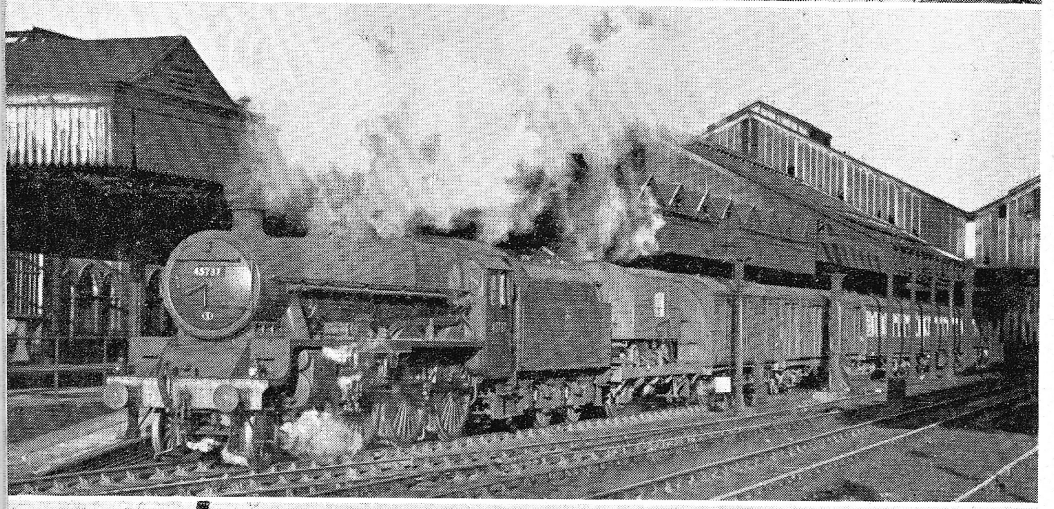
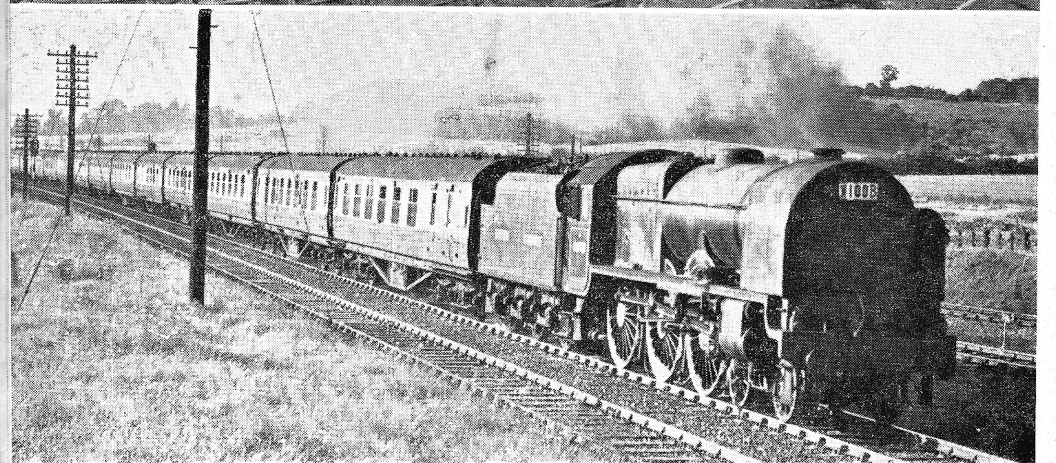
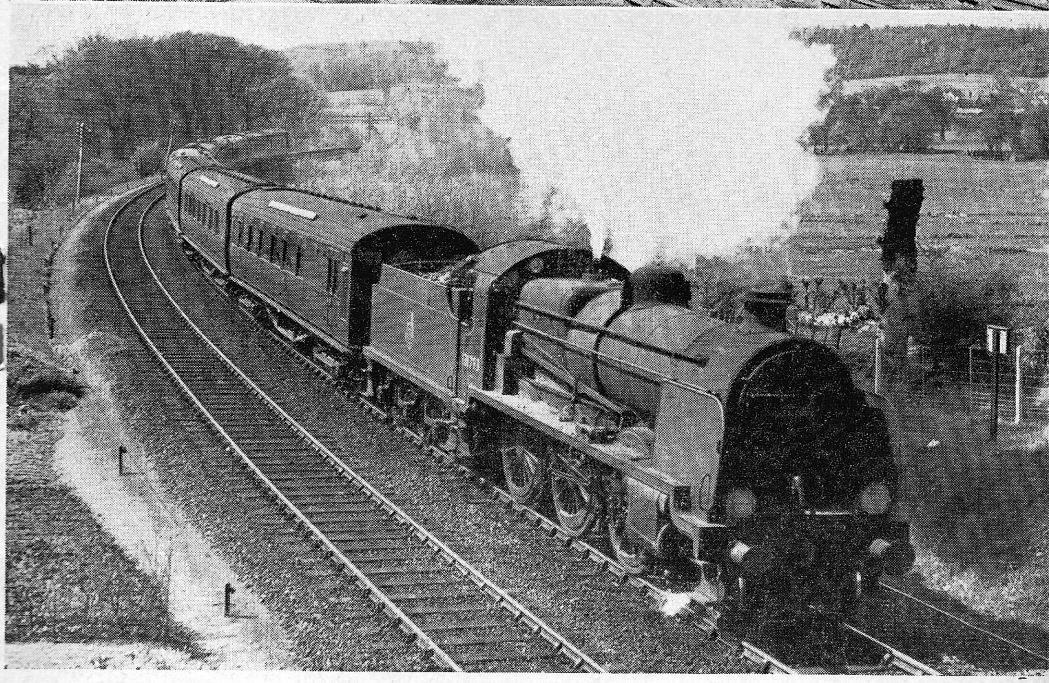




Top Left: L.M.R. 0-4-4T No. 58086 enters Wells (Priory Road) with the 9.30 a.m. train from Glastonbury (21/4/51) *[J. D. Mills*

Below: W.R. "Star" 4-6-0 No. 4043 *Prince Henry* at Dainton summit with a Birmingham-Plymouth express (15/4/51) *[J. F. Russell-Smith*



Left Centre: L.M.R. "Jubilee" 4-6-0 No. 45737 *Atlas* leaving Crewe with the 8.10a.m. Liverpool-Birmingham train (19/11/50)
Bottom Left: The up "Welshman" near Berkhamsted, headed by L.M.R. "Royal Scot" 4-6-0 No. 46140 *The King's Royal Rifle Corps* (2/9/50) *[E. D. Bruton*

Above: S.R. Class "U" 2-6-0 No. 31793, one of the "River" 2-6-4T rebuilds, approaches Shalford, between Guildford and Dorking, with the Birkenhead-Margate through train (2/5/50) *[E. C. Griffith*

PICTURE PARADE (Continued)

Above : W.R. "2251" Class 0-6-0 No. 3217 passing Swindon (4/4/51)

Top right : L.M.R. Class "2P" 4-4-0 No. 40542 approaches Stamford with a Peterborough-Leicester train (7/1/50)

Bottom right: S.R. Class "H15" 4-6-0 No. 30521 pulls out of Waterloo with a Basingstoke semi-fast (22/4/51)

[B. Canning, P. H. Wells (2)

THE

CHESHIRE LINES COMMITTEE

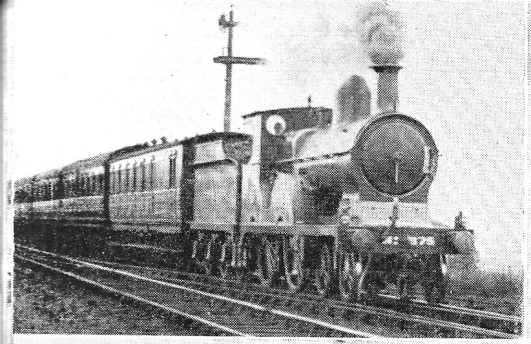
by H. C. CASSERLEY

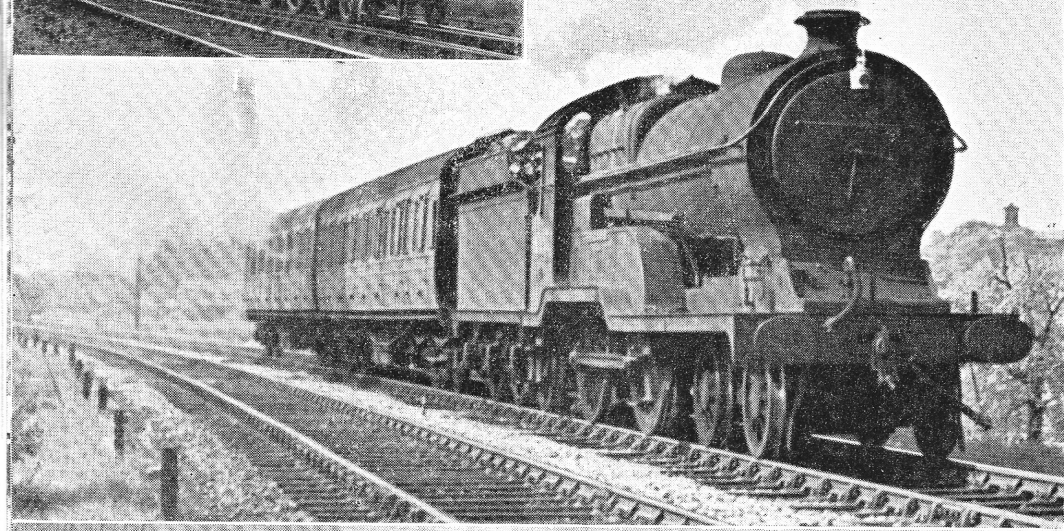
UNTIL nationalisation, the largest independent system, aside from the four groups, was the Cheshire Lines Railway—or Cheshire Lines Committee, to give its accurate title, as it was managed by a Committee of representatives of the L.N.E.R. and L.M.S.R., by whom it was jointly owned. In addition to a principal main line, 34 miles in length, between Liverpool and Manchester, it operated also many subsidiary lines and branches, to Southport in the north, to Chester in the south-west, and to Stockport and Godley Junction in an easterly direction; taking into account its various other running powers, the C.L.C. trains covered nearly 150 route miles. A curious feature was that the branches to Wigan and St. Helens which leave the C.L.C. main line at Glazebrook did not form part of its system, being purely G.C.—and L.N.E.—owned in turn, although the latter's only access to them was over the C.L.C.

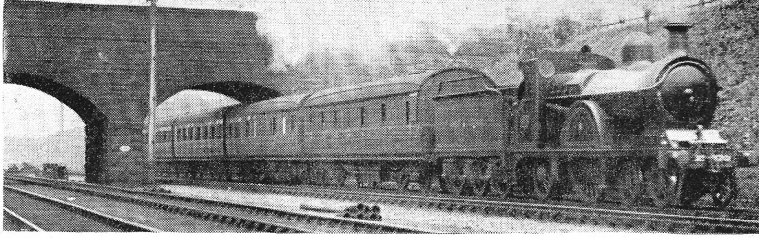
The history of the rather complicated maze of lines in this area is too intricate to discuss here in detail. Briefly, the existence of the C.L.C. arose from the desire of the old Manchester, Sheffield and Lincolnshire (later Great Central), Great Northern and the ever enterprising Midland in the 1860's to gain independent access to the important seaport of Liverpool. The M.S. & L. and the Midland had established themselves by then in Manchester, also an outpost of the G.N.R., but until that time the area westwards had been the strict preserve of the old L.N.W.R. and L. & Y.R. Companies, with the G.W.R. reaching Birkenhead on the other side of the Mersey from Liverpool, by way of Chester. Some small independent lines were being promoted in the area at this period, and it was agreed that these should be worked from the outset by the newly formed Committee; during the ensuing years various extensions were made until the Cheshire Lines system came into existence and retained its independent identity until 1947. At the time of the 1923 grouping, there was discussion as to whether the C.L.C. should not be absorbed entirely in the L.M.S. system, the obvious course from a geographical point of view; but the enormous difficulty of compensating the L.N.E.R. for cutting out its connection with such an important city as Liverpool was considered insuperable, and the C.L.C. retained its independence as a joint concern. Under nationalisation, the same consideration no longer applied, and the C.L.C. took its natural place as part of the London Midland Region.

The Cheshire Lines was always an enterprising and progressive concern; it soon set out to capture a share of the important traffic between the twin cities and with considerable success. As long ago as the opening years of this century an hourly service linked Liverpool and Manchester at each half-hour of the clock in both directions (one of the earliest examples of a regular interval service, a practice now favoured more than ever). These trains covered the 34 miles in 45 minutes, with a two-minute stop at Warrington, but some non-stop expresses did the journey in 40 minutes flat. To-day the fastest non-stop time over the same route is 44 minutes, and this by one or two trains only; most present-day C.L.C. trains make one or more intermediate calls, taking 50 minutes or more for the journey. Even so, the running is of a high order, particularly as the locomotive power is of moderate capacity only. The line is well laid out for fast running, although with only two tracks to accommodate a busy freight service in addition to the fairly extensive passenger traffic, smart working and good control—always a commendable feature of the C.L.C.—are required to avoid delays. Gradients are not unduly severe, although there are considerable stretches at 1 in 185 or thereabouts. At one point, however, between Irlam and Flixton, there is a nasty hump of 1 in 135 where the line crosses the Manchester Ship Canal, for when the latter was opened in 1894, the line had to be raised considerably above its original level to provide the necessary clearance of 75 ft. above water level for the passage of ships.

The Cheshire Lines as a railway was unique of its kind, in that it never possessed any locomotives of its own, but used those of its parent companies (though purists may object that the C.L.C. did indeed own four Sentinel steam railcars, taken out of service in 1944). Originally, its locomotives were always provided by the M.S. & L.R., in view of the proximity of their works at Gorton, but at a later date the M.R. and G.N.R. also wished to take part in the workings, and subsequently some dispute appears to have arisen. It was settled by an agreement that trains operating entirely within the C.L.C. system should

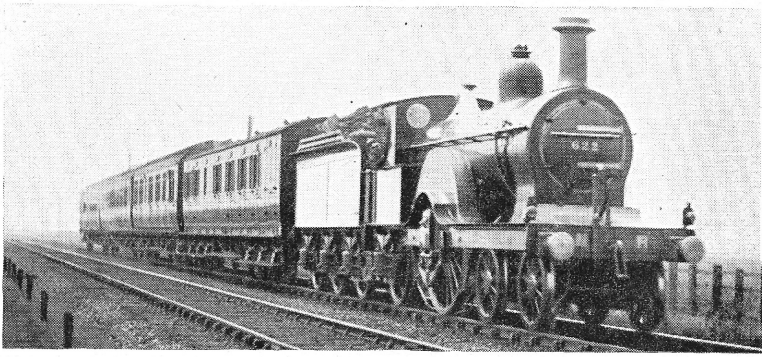


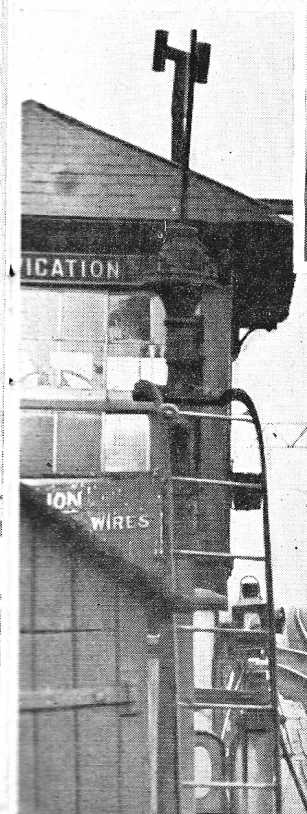


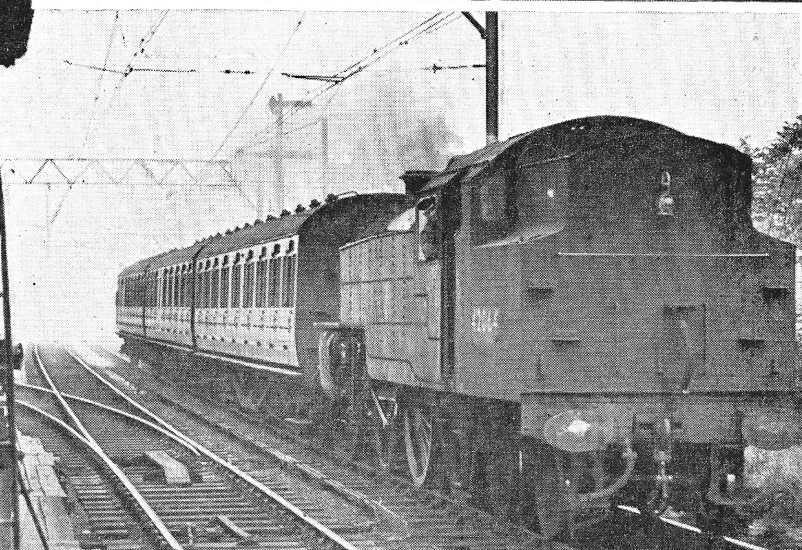


PAST AND PRESENT ON THE CHESHIRE LINES: *Inset left*: G.C. 4-4-0 No. 875 (L.N.E.R. Class "D6") heads a pre-grouping 40 minute Liverpool-Manchester train; note the C.L.C. 12-wheeler next to the tender. *Left upper*: Class "D10" 4-4-0 No. 62650 *Prince Henry* makes a smart getaway from Knutsford with a Northwich-Manchester local (7/5/49) *Left lower*: Class "D9" 4-4-0 No. 62315 attacks the 1 in 90 out of Knutsford with a Chester (Northgate)-Manchester train (7/5/49). *[H. Gordon Tidey, P. M. Alexander (2)*

This Page, Top to Bottom: G.C. single wheeler No. 970 near Halewood with a pre-grouping 40-minute Liverpool-Manchester train; in 1951, Class "D16/3" 4-4-0 No. 62535 pulls out of Manchester Central, with an ex-G.E. 0-6-0 tank in the background (24/4/51); one of the Midland singles, No. 622, is seen near Halewood with the Derby—Stockport through train; and finally one of the latest C.L.C. recruits, 2-6-4 tank No. 42064, is seen on Sunday duty at Navigation Road, on the Manchester, S. Junction and Altrincham electric line, during recent engineering works, when M.S.J.A. Sunday trains used Manchester Central Station and were steam-powered (10/6/51) *[H. Gordon Tidey (2), H. C. Casserley. T. Lewis*







be powered by M.S. & L.R. locomotives, a practice continued for the rest of the C.L.C's. existence and followed in turn by the Great Central, when the M.S. & L. expanded into that system, and finally by the L.N.E.R. Through trains to Liverpool from the Midland Railway, however, were worked by M.R. engines. Up to about 1920 five of Johnson's beautiful single wheelers, Nos. 619-23, were stationed at Liverpool for these duties, together with the remainder of the original batch of small 6 ft. 6 in. 4-4-0s built in 1876, Nos. 300-6/8, and No. 310 of the 7 ft. type, all of which had never been rebuilt. For passenger working, the line has always been the haunt of small or older engines, ideally suited to the light fast trains which were a feature of the C.L.C. In the last days of the M.S. & L.R. a number of Sacré's 2-2-2s spent their declining years working the Liverpool and Manchester expresses, and ever since Great Central types no longer suitable for the more arduous duties between Manchester and Sheffield or over the London extension have gravitated to the C.L.C. Many of Sacré's double-framed 4-4-0s were to be found there at one time, and the six large Pollitt 4-2-2s of 1900, Nos. 967-72, finished their careers there; three of them survived to become L.N.E.R. Nos. 5968/9/72, and lasted till 1926-7. Mr. Pollitt built also a number of handsome 4-4-0s for the M.S. & L.R. in the 1890's, and by the grouping many of them were operating on the Cheshire Lines; the last of this type, L.N.E.R. Class "D6" Nos. 2101/6, did not disappear until 1947, after a final spell of duty on the Chester road. In 1901-14, Mr. Robinson, of what had now become the Great Central, turned out a much larger version of this class, later L.N.E.R. Class "D9," and built 40 of them in all. Only five years ago nearly all of these engines were still at work, but like their predecessors, the survivors had found their way to the C.L.C., where they were still the principal engines in use until 1948. They did excellent work right up to the end, but they were rapidly becoming worn out through heavy pounding over this busy road, and the whole class has been withdrawn during the last two or three years.

To take their place, various types have been tried. Next in the natural order of succession were the still later G.C. "Directors"; all of the original batch of 10 built in 1913, present Nos. 62650-9, are at work on the C.L.C. as well as most of the later 1920-2 lot, Nos. 62660-70. On the freight side, most of the former M.S. & L.R. and G.C.R. types have been in use at various times, again, with emphasis on the older varieties. In the early years of the grouping a number of Sacré's old double-framed 0-6-0s frequented the C.L.C. These have long since disappeared, and their place as veterans has been taken by the complete line of surviving Parker and Pollitt small 0-6-0s of Class "J10." A few of the latter operating on the St. Helens and Wigan branches, where they undertake the entire service, both passenger and freight, are not strictly on C.L.C. territory, however. More recently the larger L.N.E.R. standard classes, L.M.S. Class "8" 2-8-0s and other types from the Midland division, have taken their turn on goods work.

Nationalisation naturally widened the choice of locomotive power for the C.L.C., although at present 4-4-0s alone can work the main line as the Brunswick shed turntable at the Liverpool end will take nothing bigger, and there are no other facilities at hand to provide for turning. As Brunswick shed is carved out of a rock cutting and exceedingly cramped, the provision of a larger turntable is extraordinarily difficult. The three alternative designs of 4-4-0 tried so far have been the rebuilt "Claud Hamiltons" of the Great Eastern, the standard L.M.S. Class "2" 4-4-0s and, most obvious choice of all, the 3-cylinder compounds. The last-mentioned were not popular at first—they never are with men unused to them—but lately their performance is much improved. Indeed, provided they are kept in a reasonable state of maintenance, they should be ideal engines for fast expresses, although perhaps not quite so suitable on the stopping trains. The Class "2s" seemed on the light side, with not enough in hand for the work, and have been displaced, but the "Clauds" have acquitted themselves fairly well; here again, however, indifferent standards of maintenance, unfortunately the lot of older engines, tells against them.

Quite recently two of the latest 2-6-4 tanks, Nos. 42064/5, have been sent to Trafford Park shed and have achieved great success. These remarkably efficient engines seem to gain immediate popularity wherever they are sent, and they may well solve the problem until it is possible to employ 4-6-0s on a general scale—although already a few Stanier Class "5s" have appeared on some workings. The water capacity of the tanks appears sufficient, at any rate for the semi-fast trains, but they may find it necessary to take water en route with stopping trains.

The C.L.C. always maintained its own coaching stock, consisting mostly of ordinary bogie compartment coaches in recent years, although at one time it

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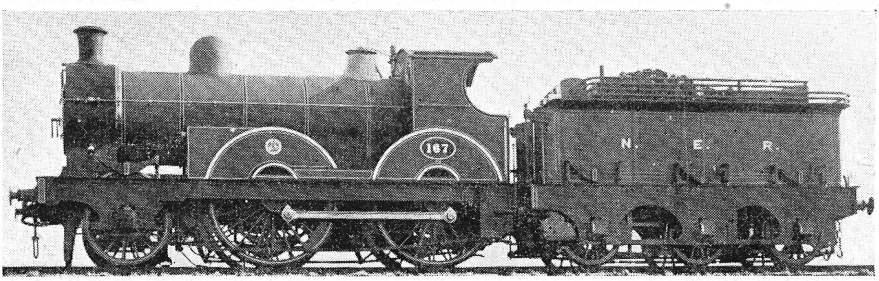


THE

WORSDELL 4-4-0s OF THE N.E.R.

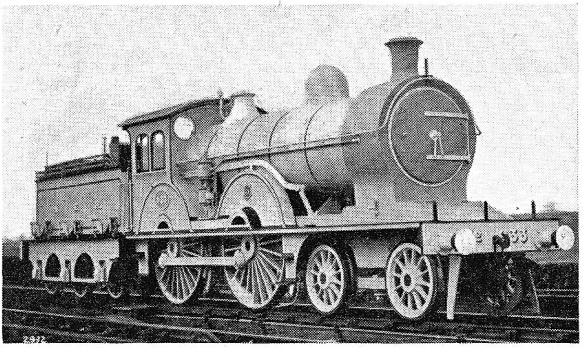
By K. Hoole

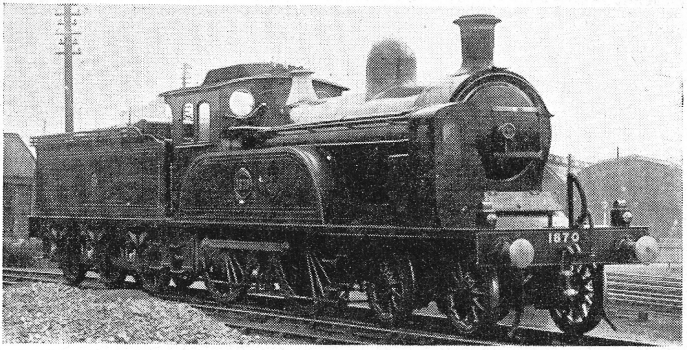
PART TWO

Class "Q1" (L.N.E.R. "D18")

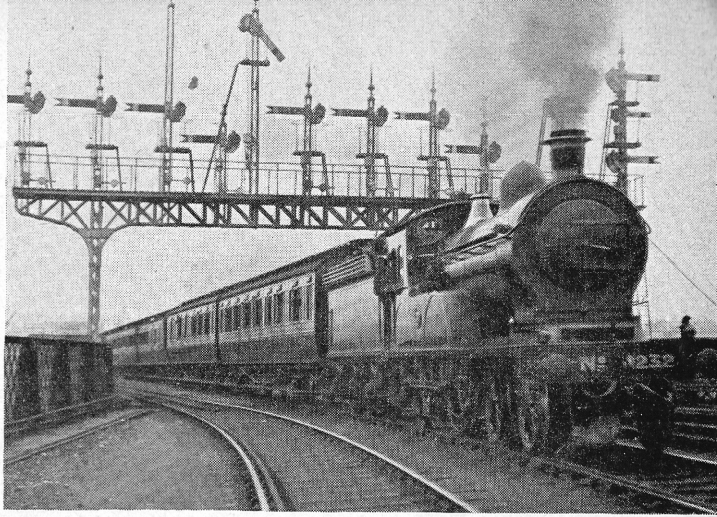
THE two engines of this class, Nos. 1869/70, had the largest coupled wheels of any engine in the British Isles —7 ft. 7¼ ins.—six inches larger than those of the preceding class, to which they were very similar. The boiler was the same size but the driving wheels were 3 in. further apart, giving a coupled wheelbase of 9 ft. 6 in., the total wheelbase being 46 ft. 2¾ in. as against 45 ft. 8¾ in. of Class "Q"; the cylinders were 20 in. by 26 in. and the "Q1's" grate area was also larger, 20.75 sq. ft. to be precise.

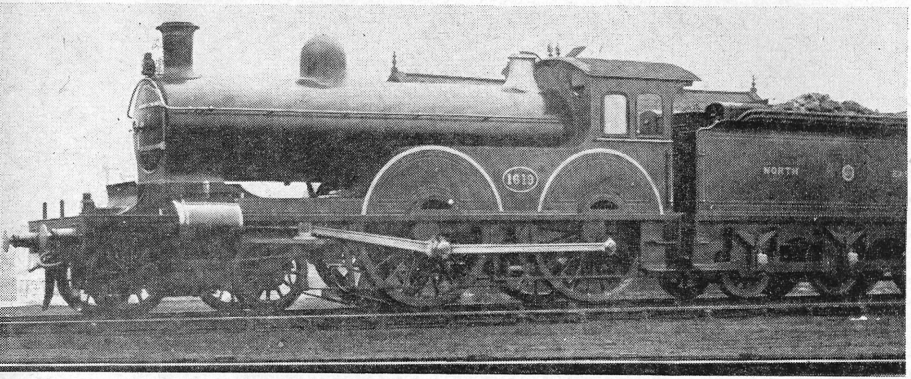
The "Q1s" were built in 1896 at Gateshead in case the "Railway Races" were resumed, but this was not to be and they took their turn on ordinary services with the "M" and "Q" class engines. For many years they were shedded at Neville Hill, Leeds, their final home when they were both withdrawn in October, 1930. No. 1869 was once timed to cover the 44.1 miles from Darlington to York in 42 min. 7 sec. on the famous Newcastle-Sheffield express, advertised as "The Fastest Train in the British Empire." This was with a load of 7 bogies and a six-wheeled van and the speed ranged from 60 m.p.h. to 74 m.p.h. for 37 miles. However, this feat did not equal the performance the Class "R" engines were to put up shortly afterwards, one of which, No. 1672, maintained a speed of 70 m.p.h. and above for 30 miles of this distance on one occasion.

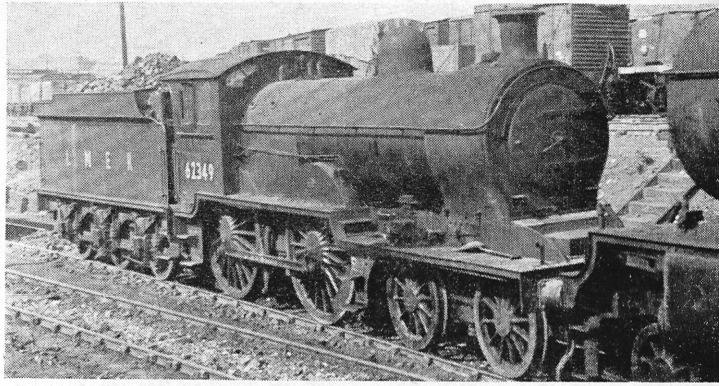




Top: Fletcher 2-4-0, No. 167, as rebuilt by Worsdell. *Centre*: The Fletcher 2-4-0 rebuilt by Worsdell at Darlington in 1906 as a 4-4-0, No. 933. *Left*: N.E. Class "Q1" 4-4-0 No. 1870, with single indicating shelter in position. *[F. Moore*







WORSDELL 4-4-0s

Top left: N.E. Class "R1" L.N.E.R. Class "D21" 4-4-0 No. 1239 leaving York for the South. *Top right*: 4-4-0 No. 1232, N.E. Class "R," L.N.E.R. Class "D20," on King Edward bridge, Newcastle, with the famous 12.20 p m. Newcastle-Sheffield express. *Bottom left*: The Worsdell compound 4-4-0, N.E. Class "3CC" No. 1619. *Bottom right*: The first modernised Class "R" 4-4-0, now Class "D20/2" No. 62349. [*H. Gordon Tidey, R. J. Purves, F. Moore, H. C. Casserley*

Class " R " (L.N.E.R. " D20 ")

The " Rs " became one of the most famous 4-4-0 types in the country, mainly because of their work on the Newcastle-Sheffield train just mentioned. This express was booked to run the 44.1 miles between Darlington and York in 43 minutes—a timing never improved upon until the streamlined " Silver Jubilee " and " Coronation " trains appeared nearly thirty years later. Runs of between 41 and 42 minutes over this stretch were common; some of the best " R " achievements recorded were by No. 1672 (39 min. 34 sec., maximum speed 78.2 m.p.h.); No. 1209 (40 min. 15 sec. net, maximum 80.25 m.p.h.); and No. 2012 (40 min. net, 41 min. 5 sec. overall, maximum 78.9 m.p.h.), all with 152 tons tare—with 165 tons No. 1207 reached 60.8 m.p.h. by the time Croft Spa was passed, a distance of 2.6 miles, completing the 44.1 miles in 40¾ min. net, 41 min. 3 sec. overall.

Designed by Wilson Worsdell, the first " R," No. 2011, emerged from Gateshead Works in 1899. Sixty were built, in two batches of 30 apiece, and 28 remain at work at the time of going to press; of these, four have been modernised by the fitting of long travel valves, and simultaneous conversion to left-hand drive. Originally they had piston valves below the cylinders and were not superheated until soon after Vincent Raven took office, when the boiler pressure was reduced from 200 to 175 lbs. per sq. inch.

After the " Atlantics " had taken over the heavier trains on the East Coast route the " Rs " were often to be seen in pairs, especially north of Newcastle. Up to a few years ago they still found their way on to the main line, assisting Pacifics and " V2s " on heavy trains—it is a pity no cameraman was at hand on 1/7/43 when No. 2105 came through Wetherby piloting a U-S-A 2-8-0, also No. 2105, on a down goods. Before the advent of the " D49 " 4-4-0s the " Rs " worked more important branch lines, such as Leeds - Hull, Leeds - Scarborough, Leeds-Northallerton, Newcastle-Carlisle and Hull-Scarborough, for which duties they were shedded at Leeds Neville Hill, Hull Botanic Gardens, Carlisle, Scarborough and Gateshead. They also worked semi-fast trains on the main line between Newcastle and Berwick from Tweedmouth and Heaton sheds. Later they were sent to Bridlington, Starbeck, Selby, West Hartlepool, Northallerton and Alnmouth sheds, from which they are still working, although a number of Selby and Starbeck engines are usually to be found stored out of use at Scarborough.

The Class " R " engines put up some excellent performances on these branch lines as well as on the main line. For example, No. 476 with 315 tons covered the 39¼ miles between Harrogate and Darlington in 40 min. 55 sec. and achieved a maximum of 81.8 m.p.h. near Ripon, and No. 725 was timed at 70.3 m.p.h. between York and Scarborough on the 6.43 p.m. from York. However, it was their ability to keep up high speeds for long periods that made them so popular.

Among the more interesting happenings recounted of individual engines, No. 2011 was reputed to have covered 284,182 miles between entering traffic on 26/8/99 and 12/3/03, by completing the daily journey, Newcastle - Edinburgh - Leeds-Newcastle, on five days a week, and travelling from Newcastle to York and back on a Sunday, a total mileage of 2,460 miles per week, exclusive of trips between sheds and stations. No. 2021 worked through from York to King's Cross with a five-coach train on 2/7/01, and returned light; later, No. 2024 was at King's Cross on 13, 14 and 15/1/06, to carry out steam heat trials when a decision was being made on the system to be incorporated in the East Coast Joint Stock. No. 2011 worked through to King's Cross on 15/4/05 with a Newcastle-London Cup Final excursion, when the Cup Final was played at Crystal Palace, and a final visitor to the south was No. 1051, which worked through to Wembley during the Empire Exhibition there in 1924/5.

During July, 1901, the North Eastern Railway carried out brake trials with No. 2020, using various types of Westinghouse brakes on both passenger stock and fish wagons, and on 28/5/08 further tests were carried out with No. 2016, between Newcastle and Alnmouth; this time it was to try out the " Maximus " brake, which was designed to reduce the pressure on the brake blocks as the speed decreased. Finally, it remains to recall that early in the century No. 2028 was tried out as an oil burner on Holden's system, and that for many years Nos. 1235 and 2013 ran with extended smokeboxes, a feature No. 2013 retained until about 1930; these were the only two engines so fitted.

It was in October, 1936, that No. 2020 emerged from Darlington works in a modernised form, rebuilt with long travel valves and left hand drive. Vacuum brake for the engine and tender replaced the Westinghouse equipment and the locomotive's appearance was altered by raising the running plate to clear the coupling rods, and the provision of single splashers for the coupled wheels and a steel-roofed cab. New cylinders 19 in. by 26 in., were fitted

together with 10 in. diameter piston valves, driven by rocking shafts from Stephenson's valve gear. After her modification No. 2020 was shedded at York and worked to Scarborough almost daily on a parcels train, returning on the 11 a.m. to Leeds, before being transferred to Starbeck to work the "Yorkshire Pullman" between Harrogate and Doncaster. This was the first working of a Pullman train through York for many years and No. 2020 was kept spotlessly clean for the job, as was the spare engine No. 1026. The return working was via Church Fenton and Wetherby on the 1.40 p.m. from King's Cross. Since then three more engines, Nos. 62360/71/5, have been similarly modified, except that their external appearance has been left unaltered, although No. 62371 has lost the decorative brass beading off the rear portion of the splashers and now has the number situated higher up than any of the others.

The individual numbers and building dates of the "Rs" were:

1899: 2011-20 **1900:** 2021-30, 2101-5. **1901:** 2106-10.
1906: 476, 592, 707/8/11-3/23-5.
1907: 1026/42/51/78, 1147/84, 1206/7/9/10/7/23/32/4-6/58/60, 1665/72.

Omitting Nos. 1147 and 1234, withdrawn in 1943, the engines were allotted the Nos. 2340-97 in the post-war L.N.E.R. scheme, in the same order as that above. Nos. 2109/17 were withdrawn in 1944; No. 1206 in 1945; Nos. 1258 and 2027 in 1946; Nos. 1236, 2021 and 2105 in 1947; Nos. 1223 and 2108 in 1948; and No. 723 in 1949. Further withdrawals, published in the Locomotive Stock Changes column of this journal, have taken place in 1951.

Class R1 (L.N.E.R. "D21")

These were the last of a long line of North Eastern 4-4-0s, Darlington Works products of 1908, to the designs of Wilson Worsdell. They were the largest British 4-4-0s at the time they were built—a fact that was against them in later days when they were relegated to branch traffic around Leeds, Harrogate and Hull. For many years at the beginning of their existence their main job was the morning Leeds to Glasgow train which they worked as far as Newcastle. In the nineteen-thirties they turned up again on this train, but then only as pilots to Class "D49" 4-4-0s when the loading was heavier than usual. In 1928/9 a number of "R1s" were transferred to Hull and were used on the 4.47 p.m. to Newcastle, which they worked as far as York. Occasionally one strayed to Bridlington and the writer remembers one driver there who expressed his opinion of them so forcibly that only two mild epithets—"big . . . . clumsy"—can be recorded. An unpleasant habit of the "R1s" was that coal was continually thrown off the tender step on to the footplate, so that it was impossible to keep the latter clean and tidy when running.

During the 1939-45 war they were frequently used as pilots to Pacifics and "V2s" on Newcastle-Liverpool trains, between Ripon and Leeds. This run included the stretch up through Bramhope Tunnel, but nevertheless on one occasion in 1942 No. 1239 helped Class "A3" Pacific No. 2595 (now No. 60084) to recover 11 min. between Ripon and Leeds with 14 packed coaches.

In 1941 the "R1" tenders were appropriated for new Class "J39" engines and their original owners were given miscellaneous G.N. tenders instead. No. 1241 was used for bombing practice in Wales after it was withdrawn in 1943; in that year it was observed in Darlington Works yard coupled to an old N.E. tender painted in the horrible blue-green colour that the L.N.E.R. used for service tenders in those days.

When new, the "R1s" were fitted with variable blast pipes and ash ejectors. The orifice of the blast pipe could be increased from $4\frac{3}{4}$ ins. to $7\frac{1}{2}$ ins. by means of a handle in the cab. It was claimed that this would reduce the amount of ash drawn through the tubes; any which did get through would be drawn through the vertical passages on the outside of the blast pipe and ejected. However, this apparatus was removed by Mr. Vincent Raven, who fitted superheaters in 1913 and reduced the boiler pressure from 225 to 175 lbs. per sq. inch. The numbers of the "R1s" were: 1237/8, built in 1908; and 1239-46, built in 1909; Nos. 1237/8/40/2-6 were allocated Nos. 2217-24 under the L.N.E.R. renumbering scheme, but none of them survived to carry their new numbers. No. 1239 was withdrawn in 1942, Nos. 1241/6 in 1943, Nos. 1240/4 in 1944, Nos. 1237/8/43 in 1945 and Nos. 1242/5 in 1946.

Class "3CC" (L.N.E.R. "D19")

In spite of his brother's addiction to compound engines, Wilson Worsdell did not seem to be in favour of them, yet although he converted all his brother's engines to simples, three compounds were built whilst he was C.M.E. The one 4-4-0 was No. 1619 (the other two were Atlantics built to the designs of Mr. W. M. Smith). When first built, No. 1619 was very similar to Nos. 1620-39 of Class "M1" and, in fact, it was then Class "M." It was a two cylinder compound on the Worsdell-von Borries system, with the boiler, wheels, etc., the same size as on the simple engines, but with a h.p. cylinder of 19 in. by 26 in., and a l.p. cylinder of 28 in. by 26 in. These were so large that again the steam chest had to be placed outside the frames and the valves driven by rocking shafts from the Stephenson's link motion. With the steam chests in this position,

DIMENSIONS OF CLASSES DESCRIBED IN THIS INSTALMENT

Class	Driv. Wheel Diam. ft.	Driv. Wheel Diam. in.	Cylinders in. x in.	Tract. Effort at 85% b.p. lb.	Weight T. cwt.	Grate Area sq. ft.	Heating Surface (sq. ft.) Firebox	Tubes and flues	Superheater	Total	Boiler Press. lb.	Boiler Barrel Diam. ft.	Boiler Barrel Diam. in.	Tube Length ft.	Tube Length in.
Q1	7	7¼	20x26	16,953	50 16	20.75	127	1,089	—	1,216	175	4	4	11	10
	7	7½	19x26	13,990	53 10	19.8	123	770	204	1,097	160	4	4	11	10
R	6	10	19x26	19,458	51 14	20.0	144	1,383	—	1,527	200	4	9	11	10
R	6	10	19x26	17,027	54 2	20.25	139	1,003 916	227 204	1,369 1,259	175	4	9	11	10
R (D20/1)	6	10	19x26	17,027	55 9	20.25	139	916 1,003	227 227	1,282 1,369	175	4	9	11	10
R (D20/2)	6	10	19x26	21,890	59 10	27	158	1,579	—	1,737	225	5	6	11	3
R1	6	10	19x26	17,027	59 0	27*	158	901	252	1,311	175	5	6	11	3
						26.73	158	1,160	258	1,576					
3cc	7	1¼	19x26 28x26‡	—	—	19.5	121	1,220	—	1,341	200	4	4	11	10
3cc†	7	1¼	20x24 19x26‡	—	53 5 53 6	23.0 23.4	118.5 120	1,171 1,170	— —	1,328.5 1,290	200 180	4	6	11	10

* First superheated boiler.

‡ High pressure cylinder.

† When rebuilt as a 3-cyl. compound, with 2 l.p. cylinders. The first boiler shown had 17 water tubes in the firebox, totalling 39 sq. ft. A firebox with 21 water tubes was fitted in 1900 and the heating surface reduced to 1,324 sq. ft. According to the official diagram No. 1619 was never superheated. The second boiler was fitted by the L.N.E.R.

it was found that they gave a lot of trouble through being so exposed and the decision to remove them was coupled with one to rebuild No. 1619 as a three cylinder compound—one h.p. cylinder and two l.p. cylinders—on the system of Mr. W. M. Smith, who was the chief draughtsman at Gateshead at the time (1898). When rebuilt, the cylinders were 19 in. by 26 in. (h.p.) and 20 in. by 24 in. (l.p.), all driving the front pair of coupled wheels. A point of interest here is that the h.p. cylinder had one piston valve, whilst the l.p. cylinders had slide valves. A boiler 4 ft. 6 in. in diameter was fitted and with water tubes in the firebox the heating surface was increased to 1,328 sq. ft.

In the writer's opinion this was one of the neatest 4-4-0 designs ever to run in this country. When new it was used on the main line between York and Edinburgh and finished its days at Bridlington shed, working with its step-sisters, the Class "M" engines. It was withdrawn from there in October, 1930, retaining its green livery until the last.

Class "901"

No article on the Worsdell 4-4-0 engines would be complete without mention of the 4-4-0 rebuilt from a Fletcher 2-4-0. This rebuilding took place in 1906 when No. 933 was fitted with a boiler 4 ft. 10 in. in diameter and given a leading bogie. In appearance it became similar to a Class "R" 4-4-0, but with separate splashers to the driving wheels, as on the Class "R1" engines. It was also fitted with a double window cab, which gave it quite a modern look, although this was spoilt by the retention of the old tender with outside frames. In spite of these alterations it was withdrawn eight years after its conversion—in 1914.

"C. J. SPEAKING"—(*Concluded from page* 303)

me a short section of viaduct, at a most terrifying angle, that could be seen peeping through the trees high above. The gradient is 75 per cent.—1 in 1 1/3!

Once again the punctuality and precision of railway working in Switzerland were an object lesson, though needless to say electrical operation is an immense asset in this connection. But the same applies also to steam operation through France, and on the outward journey was nearly our undoing. To save handling our baggage through the French and Swiss customs halls at Basle, where we had to change, I had arranged overnight with the sleeping car attendant to let us remain in the car through from the French to the Swiss side of the station, in order to take advantage of passport and baggage examination on board. We were due in Basle at 6 a.m., and I had made no arrangements to be called. Actually we did not wake till 5.45, and the train was dead on time! The extra 20 minutes in Basle thus proved a most invaluable addition to what otherwise would have been no more than a quarter of an hour in which to get dressed!

Equally on the return journey, it was on the stroke of 8.31 a.m. that train "OB" (Oberland Bernois - Boulogne) wound its way into the Gare Maritime at Boulogne, and although we were certainly on time into Victoria at 2.5 p.m., it did not say so much for the British end of the journey that the final 98 miles from Boulogne to London, complete with leisurely wanderings through Maidstone (we were allowed over two hours to run up from Folkestone Junction) should require no less than 4½ hours to complete. No wonder the airlines are popular!

LETTERS TO THE EDITOR

SOUTH-WESTERN MEMORIES

To the Editor of "Trains Illustrated."

SIR,—Mr. Crowther-Smith's recent articles have aroused half-forgotten memories of my own, particularly his mention of "M7" tanks on the 3.10 p.m. down Alton train, non-stop from Waterloo to Woking. This turn was shared by the "M7s" and Adams 0-4-2 "Jubilees" until the electric regime did away with the old 3.10 in 1937.

Travelling daily between Waterloo and Woking from 1932-5 I made many journeys on the 3.10. The 31-minute timing over the 24.4 miles was the same as for the 4.17 Portsmouth, hauled by Moguls and later "Schools," and the 5 p.m. West of England semi-fast, hauled by "King Arthurs" and "Nelsons," both of which, especially the latter, were somewhat heavier than the normal five non-corridors of the 3.10. The engines frequently showed a good turn of speed, as the three logs below, the best of a number, will show. The third shows a pass-to-stop run from Surbiton to Woking in nearly even time, which included slowing before the station to cross to the local line platform, while the second actually provided the fastest time out of Waterloo to passing Surbiton that I have ever recorded with a steam train.

S.R. 3.10 WATERLOO—ALTON

Miles	"M7" 0-4-4T No.:	249	39	667
	Date :	16/10/33	15/12/33	5/10/33
	Weight, tons tare :	106	115	130
		min. sec.	min. sec.	min. sec.
0.00	WATERLOO	0.00	0.00	0.00
1.25	Vauxhall ...	3.13	3.11	3.14
4.00	Clapham Jcn.	6.43	6.20	6.33
7.25	Wimbledon ...	10.53	9.55	10.25
12.00	Surbiton ...	16.14	14.46	15.28
13.30	Hampton Ct. J.	17.36	16.04	16.48
14.40	Esher ...	18.41	17.09	17.48
17.25	Walton-on-Thames ...	21.33	20.33	20.32
19.10	Weybridge ...	23.51	23.16	22.40
20.50	W. Weybridge	25.11	24.40	23.58
21.70	Byfleet ...	26.29	26.10	25.14
24.40	WOKING ...	29.48	29.41	28.26

Chippenham, Wilts. G. J. JEFFERSON.

THE STEAM ENGINE DOOMED?

To the Editor of "Trains Illustrated."

SIR,—Your July article on the Rugby Test Plant and the trials of a "Britannia" Pacific provoke me to criticisms of the steam locomotive Before I commence, however, I must make it clear that I am myself thrilled by a steam locomotive in action. Moreover, I spent some 10 years in the locomotive department of a leading railway company, covering many miles as a fireman, for locomotives were an absorbing passion with me, before gaining a university scholarship in engineering.

But to return to your article. Between Crewe and Carlisle, on a run during which Pacific No. 70000 consumed 3.1 lb. of coal and 24.1 lb. of water per drawbar-h.p.-hour, you describe performance as remarkable. Compare this with the average coal consumption over one year by the entire nationalised Electricity Authority—roughly 0.9 lb. of coal per brake-h.p.-hour, representing a thermal efficiency of generation of just over 20 per cent., as opposed to the 7.7 per cent. which *Britannia's* figures just mentioned represent. Other things being equal, it will be seen that a third of the coal necessary to achieve her performance would have been used had *Britannia* been an electric locomotive. This trip, however, was a long-distance one under almost ideal conditions; the thermal efficiency of engines engaged on slow trains and shunting duties is much lower. As the railways consume some seven million tons of coal per annum, electrification should save at least 3½ million tons.

The saving of coal is only one item to be considered. In power stations, water is condensed and used over and over again, with a loss no higher than 5 per cent., whereas the non-condensing steam engine loses about 8 lb. of water per lb. of coal burnt; in other words, in a year the steam engines of British Railways consume about 60 times as much water as power stations would need to generate the same amount of power. Power station plant, moreover, requires negligible lubrication, whereas steam locomotives, like all reciprocating engines, simply "eat" oil. Electrification would cut out much of the servicing time required for steam engines, always an expensive item. Stations and railways generally would be much cleaner and the job of locomotive crews much less arduous.

As I said earlier, I shall regret the passing of the steam engine, but it has reached the end of its economic life; coal is too costly a commodity to throw away on an anachronistic piece of plant with a thermal efficiency of about 8 per cent. With all due respect to the gentlemen who plan and man such places as the Rugby Test Plant, they are "flogging a dead horse." The trifling improvements that they can make to the deplorably low thermal efficiency of the steam locomotive are negligible compared with the urgent need to save coal. Complete electrification is the only sensible course. Elimination of the bad coal bogey will improve timekeeping and faster hill-climbing should cut down running times.

Dalmuir, Glasgow. CHARLES HEAP.

A THRILLING RACE

To the Editor of "Trains Illustrated."

SIR,—On 9/6/51 I travelled from Birmingham to Crewe on the "Pines Express," which left New Street approximately 27 minutes late behind Class "5" No. 44687. Soon after joining the main Euston-Carlisle line and passing through Stafford on the down slow line, the "Mid-day Scot" on the down fast drew up alongside, then gradually overtook us. However, the "Pines Express" accelerated, gradually regaining lost ground, and it was soon evident that a race was on. For the next few miles as far as Whitmore water troughs we held a slight lead, which permitted passengers in our open vestibuled coach to observe the blue Pacific of the "Mid-day Scot" at speed and at close range. The driver and fireman appeared to be highly enjoying the affair, so this glorious race went on right down the bank and through Madeley, where our speeds were considerable. It was just after passing the latter station that the driver of the "Mid-day Scot" decided to open up—I actually witnessed the action—and it was indeed an experience to *hear* the crescendo exhaust beats of the Pacific as slowly, but not too surely, it regained the lead. By this time, of course, the passengers were caught up in the spirit of the race, as once more, with the last carriage of the "Mid-day Scot" rocking past our window and out of sight, to our surprise and joy we started to overtake again. But, alas, it was not for long, for by this time we were too near Crewe. This thrilling race was over and we rolled into Crewe in a net time of 28 minutes from passing through Stafford.

Bromsgrove, Worcester. ERNEST MILLS.

No. 46202 "PRINCE CHARLES"?

To the Editor of "Trains Illustrated."

SIR,—May I suggest that the rebuilt "Turbomotive" of the L.M.R., No. 46202, be named *Prince Charles* as a tribute to H.R.H. Princess Elizabeth's son, the future King? On the same topic, "Jubilee" No. 45700 might now be renamed *Vanguard*.

Bletchley, Bucks. C. R. ARGENT.

TRAIN TOPICS

Towards Faster Freight Services

Readers of the daily press will be aware that one of British Railways' most pressing problems is the expeditious dispatch of goods traffic. As an aid to remedying this situation, some 150 individual programmes of development and modernisation are now under way or have been authorised for commencement, a large number of them schemes that were delayed by the last war. Among the biggest of these projects are the building of an entirely new 7-mile, double-track branch from the N.C.B.'s Calverton Colliery to the L.M.R. at Hucknall, already mentioned in these columns, and the considerable extension of marshalling yards and sidings at Oakley and Kelty, on the ex-L.N.E.R. Scottish lines from Alloa to Dunfermline Upper and Thornton Junction, to facilitate the transfer of coal from the developing Fifeshire and Clackmannanshire coalfields to Western Scottish ports. In Wales, running lines are to be diverted, and 15 miles of new sidings and five signalboxes added at Port Talbot, to cope with the increased output of the enlarged steelworks nearby, while at Newport the 3-mile long East Usk branch is to be doubled and new loops, sidings and signalling provided to cater for heavy coal traffic to and from the new B.E.A. power station at its Uskmouth end. Improvements to the goods facilities are scheduled also at Basford, north of Nottingham, and Rolleston, junction of the Newark-Melton Mowbray and Nottingham-Grantham lines; Liverpool (Brunswick and Sandon Docks), Scunthorpe and Brentford At various goods depots—Bricklayers' Arms, Liverpool (Huskisson), Darlington, Crewe and Aberdeen (Guild St.)—improvements are to be put in hand.

New Tracklaying Cranes for the L.M.R.

In 1946, the L.M.R. began the practice of using existing cranes to relay track in pre-assembled lengths. So successful was the idea that this Region lately has ordered ten new 8½-ton diesel electric travelling cranes specially designed for this job, built by Taylor & Hubbard Ltd., of Leicester, seven of which are already in operation. Capable of travelling at 3 m.p.h. with their 8½-ton load and of hauling three loaded wagons up a gradient of 1 in 40, they can be included in ordinary trains for travelling from place to place at speeds up to 45 m.p.h. The tail radius of the rotating super-structure is restricted to 5 ft. to reduce obstruction to adjacent structures and passing traffic to the minimum when the crane is in operation. The engine, a 3-cylinder diesel developing 82½ b.h.p., is mounted at one end of the undercarriage. When in use, the cranes are operated in pairs, one to lift the old track, the other to relay from trucks, stacked with pre-assembled lengths of track, which are shunted forward progressively over the line under attention; the cranes work from the adjacent line. A great advantage of these units, by comparison with special purpose tracklaying machines, is that they can be pressed into service for all types of crane work.

More Branch Closures Threatened

We have learned that a further series of branch lines is threatened with withdrawal of passenger services. The list comprises: Wroxham-County School (on the Wells-on-Sea-Dereham line, Norfolk); Beccles-Tivetshall (Norfolk); Bangor-Bethesda; Blisworth-Stratford-on-Avon; Durham-Waterhouses; Highbridge-Burnham-on-Sea (Somerset); Wellington-Coalport (Salop); Llantrisant-Cowbridge (Glamorgan); Bishops Stortford Braintree (Essex); Hatfield-St. Albans; and Much Wenlock-Craven Arms (W.R.) On 31/7/51, the Nottingham Suburban branch was closed to the remaining freight traffic, and similar action was taken with the Wymondham-Forncett branch in Norfolk on 4/8/51. Other branches from which it is proposed to withdraw the remaining traffic and close completely are: Sutton-in-Ashfield (Notts); Blackbraes and Annan-Quarry (Scotland); Hythe (S.R.); and Pontrilas-Dorstone (W.R.). Ordinary passenger services are to be withdrawn from the S.R. Weymouth (Melcombe Regis)-Easton line. On the other hand, we learn that the Dearne valley service, described last month, is still in operation. [J. Bourne, R. E. Vincent, A. Booth.]

New Sleeping Cars

British Railways are now constructing 21 new third class sleeping cars, 15 at Derby and 6 at Doncaster, which it is hoped will be ready for Anglo-Scottish service in the autumn. Principal difference between the new design and existing types is that the former will have two berths, one above the other, in each compartment, instead of four, and passengers will be provided with full bedding instead of rugs and pillows only; every compartment will be supplied with running hot and cold water. The new cars will be of two types, one with 11 compartments and an attendants' section, the other with 12 compartments. Experimental cars of this type, built by the L.N.E.R., have been in use for some time past between King's Cross and Edinburgh, at a higher supplement, of course, than the cars with four-berth compartments.

News in Brief

In addition to the signalling improvements at Euston and York, described last month, British Railways plan modernisation, with colour-light signalling, of installations on the Glasgow Central Low Level line; the Levenshulme-Stockport section of the Manchester-Crewe main line; the Denham-High Wycombe stretch of the London-Birmingnam route; and at Carlisle, Stafford, St. Pancras, Hull (West Parade), Scarborough and Dundee (Tay Bridge).

On 19/7/51, a new 3,800 ton, 1,400-passenger ship was launched at Dumbarton to replace the S.S. *Hantonia* on British Railways' Southampton-Havre service. She is the S.S. *Normannia*, and takes her name from a ship lost at Dunkerque in 1940.

In future a challenge cup for the inspector and cash prizes for gangers and men will be awarded to winners of the competitions for best kept lengths of permanent way on the L.M.R. First winners were gangs from Manchester, Liverpool and Blackburn.

We noted on 16/7/51 that the down "Devon Belle," S.R., included one of the new "Golden Arrow" Pullmans, Car No. 208. A recent visit to the West Country disclosed that a good proportion of the goods brake vans in use in the Exeter district are ex-L.N.E.R. or L.M.S.R.

Some regrettable errors and misprints slipped through in our July issue. On page 232, Nos. 335/7/48 should have been included amongst the Midland 4-4-0s converted to "G7." The pictures at the top of page 240 and bottom left of page 241 were taken from near a road bridge south of the ex-G.C. overbridge at Rugby. The train pictured at the top of page 234 was the Ripon portion of the 10.18 from King's Cross, and that at the top left of page 251 was a Bristol-*Bradford* train, for which the use of a 2-6-0 over the 13½-mile run from Leeds would not be remarkable; in fact, anything down the scale to ex-L. & Y. 2-4-2 tanks is used for such journeys. Finally, on page 256 of the August issue, the Waterloo-Bournemouth line was completed in 1840, not 1940! [W. J. Probert, H. Weston, J. C. W. Halliday.]

THE CHESHIRE LINES—(*Concluded from p.* 312) boasted some twelve-wheelers. The carriages were painted in L.N.E.R. teak colour, now giving place to standard B.R. red. Curiously enough, C.L.C. coaching stock repainted by B.R. retains its former Cheshire Lines numbers with the prefix "M," thereby duplicating those of earlier ex-L.M.S. vehicles, mostly dining cars; however, to distinguish them, the Cheshire Lines vehicles also retain the initials "C.L.C."—an odd perpetuation of a pre-nationalisation legend.

Motive Power Miscellany

LONDON MIDLAND REGION

We are informed officially that "7MT" Pacifics Nos. 70015/6 are on loan to the L.M.R. for three months to enable the assembling of comprehensive data concerning their capabilities as quickly as possible; the same applies to the two new Pacifics on loan to the Southern. No. 70015, at Camden, has been working the 8.30 a.m. Euston-Liverpool and 5.25 p.m. return service. No. 70016 reached Leeds on 1/7/51 and for the next four days took charge of the 3.12 p.m. Leeds-Morecambe and 6.55 p.m. return, before turning to the 10.33 a.m. to Glasgow and 9.5 p.m. return on 6/7/51. But on 9/8/51 No. 70016 was noted on the first Festival Euston-Crewe excursion; and No. 70015 had left the Liverpool turn. [A. W. Wilson.]

Despite a contrary impression derived from official sources, diesel electric locomotive No. 10001, it seems, made but one northbound run as a single unit on the "Royal Scot," on 6/6/51. From 11-14/6/51, the twins resumed their normal summer working on the 9.5 p.m. down from Euston and the up "Royal Scot," before 10000 repaired to Derby for attention and No. 10001 began a spell on the 5.5 p.m. Euston-Blackpool, returning either on the 8 a.m. from Blackpool or the 5 a.m. fitted freight from Crewe. Recently No 10000 has reappeared on its old job with the 2.40 p m Scotch Goods from Camden.

L.M.R locomotives have begun to appear at Doncaster with some regularity. On 13/7/51, it was observed that the 9.30 p.m. Doncaster-Penistone via Barnsley, the return working of the 6.2 p.m. from Penistone and customarily a Barnsley "C13," occasionally "J11" or "J39" turn, comprised a standard L.M. "4F" 0-6-0 and five L.M.R. coaches; earlier, on 6/7/51, 0-6-0 No. 44089 was observed in Doncaster carriage sidings. On 17/7/51 Garratt No. 47983 passed through Warmsworth, heading eastwards over the Doncaster avoiding line, presumably for Scunthorpe, with an iron ore train, and recently several Stanier 2-8-0s have been seen on this route. On 20/7/51, 2-6-0 No. 42940 appeared with the Fridays only 5.40 p.m. Sheffield (Midland)-Hull train and returned with the 9.42 p.m. from Doncaster; the daily 9.10 a.m. from Hull and 3.15 p.m. return (4.30 p.m. on Saturdays) from Sheffield (Midland), however, is a Hull "D49" 4-4-0 turn. [F. Needham.]

Reverting to the topic of Scottish engines at Manchester, we are now reliably informed that the 4.15 p.m. Manchester-Glasgow and 10.33 a.m. Preston-Glasgow are always 26A turns; the 10.40 a.m. from Preston, however, is definitely a 66A turn, frequently handled by a rebuilt "Scot." Referring to our July paragraph on the Bury-Holcombe Brook auto-train, we learn that three 2-4-2 tanks, Nos. 50647/51/6, were specially transferred to 26D to operate this service, though No. 50829 has since replaced No. 50647. The branch now faces complete closure.

A new freight working between Saltney sidings, Chester, and Northwich now brings W.R. 2-8-0s ("WD" or "ROD") on to the C.L.C. On another inter-Regional freight working, between Chester and Birkenhead, W.R. crews are making one daily trip on an L.M. engine from Speke (8C); on 23/7/51, 2-6-0 No. 42962 was noted at Chester (84K) shed, and a fireman was understood to express preference for this Stanier design over a W.R. "4300" 2-6-0. Stanier 2-8-0s are now frequent visitors to Liverpool Brunswick. [A. Mayor.]

News in Brief: Class "5MT" 4-6-0s reappeared at Clacton-on-Sea on 1/7/51, when Nos. 45250 (2A) and 45353 (4A) arrived with excursions from the L.M.R. Watford 2-6-4 tank No. 42119 worked through to Cambridge with an excursion on 22/7/51 [A. Loveay, R. Mann] . . . . Polmadie "Scot" No. 46121 visited London on 21/7/51, taking out the 10.40 a.m. Euston-Carlisle and Windermere (J. Hosford) . . . . A 68A engine was again seen on the 6.12 p.m. Preston-Colne on 14/7/51. "Jubilee" No. 45581; on 21/7/51 a "2MT" 2-6-0 took charge, on 28/7/51, the engine involved was No. 45578 (12A) [D. Thornber] . . . . As the one-time L.N.W.R. line between Huddersfield and Stalybridge via Standedge is now N.E.R. territory, several engine crews have recently been transferred from Hull Dairycoates to Huddersfield (25B). A forecast that heavier Eastern motive power might be seen on this line seems to have been fulfilled, for on 30/7/51, York "A2/2" Pacific No. 60502 passed through Horbury, between Wakefield and Huddersfield on the ex-L. & Y.R., with a fitted freight in the Liverpool direction ["South Yorkshireman," J. B. W. Hall] . . . . "Patriot" No. 45501 (9A) was observed heading through Worcester over the old Midland line with an express for Bristol on 30/6/51. Two more "Patriots" also have worked through to Bath recently with trains from Manchester, No. 45543 on an early June Saturday, and No. 45538 on 28/7/51. [H. Beard, J. F. Thorley.]

EASTERN & N.E. REGIONS

With the withdrawal of Class "D2" (G.N. "D1") 4-4-0 No. 62172, a single ex-G.N. 4-4-0 remains, the modified "D3" No. 62000. These two classes were the firstfruits of Ivatt's entry into office at Doncaster; the first "D3" appeared in 1896, the first "D2," concurrently with the first of Ivatt's short-lived 4-2-2s, in 1898. Between 1898-1908, 70 "D2s" were built, all but 15 by the end of 1902, intended, with the 51 "D3s" (of which two were rebuilt to Class "D2"), for secondary express work. Some "D2s" were rebuilt with superheated boilers standard to those of Classes "D1" and "J6," the remainder retained boilers standard with those of Class "J1." These 4-4-0s handled a good deal of East Coast express work—between Leeds and Doncaster well into the grouping years; one interesting memory of them is that four, G.N. Nos. 1396-9, were allocated to the G.N. Manchester shed, whence they worked fast freight over the Midland to Nottingham, where G.N. metals were regained.

The ex-G.E. "N7" 0-6-2 tanks are moving abroad. Following recent transfers to Colwick, Nos. 69637/43 have been sent to Staveley, and King's Cross has received Nos. 69689/92/4/8. But on 8/7/51 No. 69694 was observed working a Leeds Central-Bradford Exchange local; it is reported that engines of this type are to be drafted to the West Riding to operate a fast auto-train service between Leeds and Bradford. The through Halifax portion of the 6.18 p.m. from King's Cross this summer is taken over the ex-L.M.S. line from Bradford through Low Moor; motive power occasionally is provided by one of the "B1s" recently transferred from Norwich to Ardsley, more often by an "N1." Incidentally, referring to recent reports of West Riding "N1s" pressed into use when on shop visits south to Stratford (No. 69446 of 37B was shunting at Wood Green on 11/7/51, obviously fresh out of plant), we learn that home crews do not approve of the condition in which these tanks are returned ultimately. [M. Goodall, J. Bracewell, M. S. Seaman.]

An interesting working took place on 24/6/51, when Grantham "B12" 4-6-0 worked through to Southend Victoria with an excursion from its home town; incidentally Southend Victoria shed now boasts a "B1" of its own, No. 61360. Although "K1" 2-6-0 No. 62014 was seen at Beccles on 9/6/51, its first visit to this line was on 4/6/51 at the head of the Harwich-Manchester through train. Another March "K1," No. 62055, headed the 8 a.m up Clacton Interval Service train on 5 and 6/7/51. Colchester has received two of the new batch of Class "2MT" 2-6-0s, which, following the stovepipe experiments with No. 46424, have a taller, more slender chimney than the prototype batch; although a rim mercifully has been added, the new fitting is unsightly. It was learned at Harwich on 16/7/51 that Southern Pacific No. 34057

had worked parcels trains thence to Peterborough. Two former King's Cross "C12" 4-4-2 tanks, Nos. 67356/74, have been sent to King's Lynn to operate the South Lynn-Dereham auto-train service, one carriage set for which bears the legend: "Marylebone and High Wycombe push and pull set." A stranger at King's Lynn, to which access by locomotives higher than R.A.5 classification normally is prohibited, was "L1" No. 67731 (30A), on 21/7/51; possibly it had arrived for civil engineers' tests. [R. J. Humphries, R. Mann, S. Wilson, B. Wenlock.]

From 17/7/51 the 3 a.m. Marylebone-Crewe parcels train was to be worked by E.R. engine and crew as far as Bletchley, where the train was retimed to arrive at 4.54 a.m. Two Pacific strangers visited the ex-G.C. main line in July; on 6/7/51, Heaton "A3" No. 60072 passed Loughborough at 10.35 p.m. on an unidentified passenger train which may have been the through York-Swindon service, and on 19/7/51 York "A1" No. 60150 was seen on an up evening fast freight. On 23/7/51, Stockton "B1" No. 61034 headed a fish train that passed Loughborough at 5.30 p.m., and the same evening "B17" No. 61647 of Ipswich was seen on a local train. On 14/7/51 the latter visited Southport (Lord St.) with an excursion from Gorton, followed next day by "B1" No. 61021 (51A). Some Neasden "A3s," notably Nos. 60051/61, have lately been relegated to such humble turns as the 9.5 a.m. Woodford-Neasden mineral freight. "A5s" returned to the Marylebone-Princes Risborough-Aylesbury service when the W.R. 2-6-2 tanks, Nos. 6129/66, returned from Neasden to Swindon for repair. [G. C. Pettitt, E. A. Thwaite, J. P. Andrew, D. Wilson, I. D. Fowler, D. F. Walker.]

This summer the non-stop "Capitals Limited" workings were inaugurated by "A4s" Nos. 60022/7, but on 7/7/51 No. 60027 failed with the down train, which passed Doncaster behind "A2/3" No. 60523. A very rare wanderer noted at Doncaster on 30/6/51 was "B12/1" No. 61521 of Kittybrewster at the head of a southbound goods; on the same day "A5" 4-6-2 tank No. 69837 was heading back to Darlington from Stratford with a goods. [P. J. Coster, B. G. Warnes, R. K. Cox.]

News in Brief: New "B1" 4-6-0 No. 61379 has been named *Mayflower* . . . . The York and Neville Hill monopoly of "B16s" has been broken with the transfer of No. 61445 to Scarborough, where an unusual visitor on 16/6/51 was "J11" No. 64432 with a Saturdays only train from Silkstone . . . . Kirkby Stephen and Darlington have received the first of their "2MT" 2-6-0s for operating the difficult cross-country line to Tebay and Penrith [R. Smith] . . . . Stratford "L1s" sent to Darlington for repair have been seen working Richmond branch trains [J. Bracewell] . . . . On 7/7/51 No. 61060 (53A) passed through Blackburn towards Rose Grove coupled with L.M.R. 2-6-0 No. 42706 [M. T. J. Bolton].

WESTERN REGION

In reply to our July question concerning the "fill-in" turns performed by "Kings" from Shrewsbury, we learn that the working involved, the 4.30 p.m. from Bristol, reaches Shrewsbury at 7.51 p.m. and the engine returns on the 9.20 p.m., so that the question does not arise. Similarly, the Newton Abbot "Castles" arrive at 3.53 p.m. on Mondays, Wednesdays and Fridays and have no further job until they return at 11.22 a.m. the next day. Incidentally, the "Kings," including No. 6000, until recently a regular visitor to Shrewsbury, have returned to Bristol-Paddington turns, notably the 11.45 a.m. up non-stop via Badminton and the "Bristolian." [W. L. Brown, J. P. Andrew, I. D. Fowler.]

Chief W.R. locomotive news is the withdrawal of No. 9089, last of the "Duke" Class 4-4-0s, in mid-July, to which further reference will be made in an article next month. The Gas Turbine No. 18000 was still out of service in July, following the burning out of the pre-heater unit at Bristol Temple Meads early in June; as spares and mechanics had to be brought over from Switzerland, the engine was not expected to return to service until August. The first standard "4MT" 4-6-0, No. 75000, has been a regular performer on the 2.42 p.m. semi-fast from Swindon and 6.58 p.m. return from Paddington to Didcot, which continues at 9.15 p.m. to Swindon. On 27/7/51, No. 75000 took on the 9 a.m. Swindon-Paddington and 1.18 p.m. Paddington-Weston-Super-Mare. On 31/7/51, it was again on the 1.18, but had come up on the 7.10 a.m. Cheltenham-Paddington; time was lost in both directions. It is understood that these were special trips to test the engine's vacuum raising powers on such 13 and 12-coach trains as it handled on the latter occasion. [D. Castle, J. P. Andrew.]

Odd livery combinations seem to proliferate on the W.R.; at Paddington on 5/7/51, 4-6-0 No. 6910 was seen in lined black with a dirty green tender, lettered G.W. with the double crest, and we observed No. 6940 in the same condition at Newton Abbot, by the side of No. 5902 in unlined black with an unlettered green tender, on 20/7/51. No. 5984 is reported to be similarly painted. [J. P. Andrew, M. R. B. Taylor, A. S. Billett, D. Castle.]

Another "4500" Class 2-6-2 tank has visited the London area; on 27/6/51, No. 4519 (87H) was seen on an up goods near Reading. The shortage of heavy freight power presumably was responsible for the presence at Old Oak three days earlier of Dean Goods 0-6-0s Nos. 2537 (86C) and 2568 (82C), the former displaying on its tender the legend: "For the Festival of Britain"! On 3/7/51, Exeter 2-6-0 No. 7316 was working empty stock into Paddington, but by the end of the month it was back at home, working the 11.45 a.m. Exeter Central-Plymouth Friary, and 4.40 p.m. return, which, with the 2.35 p.m. from Friary and 6.47 p.m. return from Exeter Central, are regular 83C and 83D turns respectively over the ex-S.R. line, for which Moguls are normally rostered by Exeter. The two Southern diesel shunters have been transferred from London to Bordesley Green, Birmingham. [I. D. Fowler, J. Bourne, "City of Truro."]

An abnormal amount of piloting was observed at Paddington on 19/7/51. The 9.45 a.m. to Worcester left behind two "Halls" (as it did the next morning, with 6962 (81A) and 6910 81E); the 11.20 a.m. arrival from Wolverhampton rolled in with a "King" piloting "Castle" No. 5036 (81D), the latter a substitute for a failed "King" on the 6.10 p.m. to Birkenhead the previous evening; "Castle" No. 4088 (83D) was paired with No. 5085 (81A) on the 1.30 p.m. to Penzance, and No. 5075 (84K) with "Hall" No. 5943 (85A) on the 1.45 p.m. to Worcester (this Chester "Castle" headed the 1.45 p.m. again next day). The 5.20 p.m. to Reading is normally powered by an 81D "Hall" (which takes the train on to Hungerford before returning light with the guard to Newbury and piloted by a Westbury "Hall." which runs light from Reading to Newbury to pick up there the rear portion of the 6 p.m. Paddington-Trowbridge; on this occasion, the pilot was No. 7924 (82D) and the train engine of the 5.20 p.m., 2-6-0 No. 7312 (85B)—on 4/7/51 it was "Grange" No. 6850 (82B). Our correspondent has noted that although the now almost regular relief to the 6.10 p.m. down is timed to leave two minutes ahead of the main train, it takes the down carriage road to Old Oak Common West, to enable the main train to get in front. An interesting carriage working occurs every Friday, when the stock (sometimes a part of it only) of the 12.40 p.m. arrival at Paddington, the combined 7.50 a.m. from Taunton and 8.55 a.m. from Cheltenham, is hauled straightaway from No. 8 platform via the down carriage lines to Subway Junction, thence over the down relief to Old Oak Common West and on to Bicester North to form the Friday 6.25 p.m. from that town to London. [J. P. Andrew.]

Last month we reported the appearance of Woodford and Colwick "WD" 2-8-0s in South Wales. This results from the introduction of some new daily freight workings from Woodford

at 8.50 and 9.50 p.m., 1.30 and 2.15 a.m., returning from Alexandra Dock Junction at 2.45 and 3.50 p.m. and from West Mendalgieff at 5.30 and 7.35 p.m. The route followed is via Stratford-on-Avon, L.M.R., Broom Junction (where E.R. and W.R. crews are interchanged). Ashchurch and Gloucester [*Railway Observer.*]

An unusual combination was noted on 28/7/51, when the up "Cambrian Coast Express" passed Wellington, Salop, behind a couple of 2-6-0s, 6321 (84A) with the headboard on the smokebox doors, and 5309 (84B). Later a second "Cambrian Coast Express" appeared, for No. 5386 (84A), which had worked the down train, appeared piloting No. 7800 (84E) on the Aberystwyth-Birmingham train with the headboard still in position. The previous evening two Wolverhampton-Shrewsbury stopping trains were both double-headed, the 5.33 p.m. by 4049 (84A) and 5097 (84G) and the 6.32 p.m. by 4941 (86A) and 3104, a 2-6-2 tank of 84A. [D. J. Rollason.]

News in Brief : An amusing sight is presented by the engine of the up "Bristolian"; it travels down on the "Merchant Venturer," and returns with that train's locomotive headboard face outwards on the running plate spare lamp bracket [M. Ledwidge] . . . . On 3/7/51, the Cardiff-York through train reached Oxford behind "Saint" No. 2940 of Cardiff. No. 2945 (82C) took out the 11.50 a.m. Paddington-South Wales relief on 28/7/51 [R. Bull, J. M. Craig.] . . . . With the advent of summer the "4700" 2-8-0s appear to have returned to express working; on 16/6/51 No. 4705 headed the 7.30 a.m. Paddington-Paignton. On 21/7/51 we noted No. 4703 at Dawlish on the 1.25 p.m. Paddington-Paignton, and on 28/7/51 No. 4707 powered the 11.5 a.m. Paddington-Plymouth. On 4/8/51 No. 4707 took the 1.30 p.m. Paddington-Penzance and No. 4700 the down "Torbay Express"! [J. M. Craig, J. W. Murphy] . . . . Referring to a note in our June issue, although Didcot supplies motive power for all other duties on the Wallingford branch, Reading is responsible for the auto-trains [J. Bourne] . . . . The Worcester "Castle" working the "Torbay Express" comes up to Paddington, Mondays and Thursdays, on the 3.30 p.m. freight from Worcester, takes the down "Torbay" on Tuesdays and Fridays, the up train on Wednesdays and Saturdays, returning home on the last-mentioned days with the 11.45 p.m. freight from London [*Railway Observer*] . . . . The first "7MT" Pacifics to be noted at Swindon are Nos. 70017/9. On 10/8/51, No. 70017 worked the 7.35 a.m. Swindon-Bristol and 10.5 a.m. return (a Swindon running-in turn), on 13/8/51 the 7.10 a.m. Cheltenham-Paddington and 1.15 p.m. Paddington-Weston-Super-Mare [P. R. Forsey, M. Ledwidge.]

SOUTHERN REGION

At Ashford works the second S.R. diesel-electric express locomotive was practically complete by the end of July and due to undergo testing in the near future. Pacific No. 35019 has been turned out of Eastleigh with single blastpipe and chimney; it is operating from Eastleigh shed, but is understood to be suffering from inferior steaming. With 35018, it is in standard green livery. On 30/7/51, standard Pacific No. 70014 began work on the 10.00 a.m. Victoria-Dover and 2.25 p.m. return boat train from Folkestone. [A. T. H. Tayler, T. Ryan.]

At Exeter recently, we noted that S.R. Pacifics still work regularly over the ex-G.W. main line to Plymouth. The trains concerned are 11.25 a.m. from St. Davids, returning with the 4.30 p.m from Plymouth North Road; and the 2.15 p.m. from North Road, returning on the 5.30 p.m. from St. David's. "King Arthurs" were frequently seen on express duties between Salisbury and Exeter, particularly the through trains from Portsmouth and Brighton to North Devon. In connection with last month's article, we learn that S.R. "Ns," "T9s" and "M7s" are now permitted to work over the Taunton-Barnstaple line; on 8/5/51 "M7" No. 30252 was observed at Taunton. Recently "Star" 4-6-0 No. 4054 worked a trial trip with one coach between Exeter and Plymouth over the ex-S.R. route. [*Railway Observer.*]

News in Brief : By mid-August, the last "WD" 2-8-0s on the S.R. will all have been transferred to the L.M.R. . . . Piloting of heavy trains up the 1 in 70 bank out of Dover to Deal is now common practice, and Brighton 2-6-4 tanks have been seen assisting Pacifics, "Arthurs" and "Schools" [F. G. Thomas] . . . . During the week beginning 2/7/51, the 4.39 Eastbourne-Tunbridge Wells was double-headed by "E5" No. 32404 and "I3" No. 32030, the train comprising a 3-coach non-corridor set—the first case of double-heading noted in the Tunbridge Wells area since 1944 [M. J. Cawley] . . . . During the week of 18/6/51, an L.M.R. dynamometer car was used with one of the S.R. electric locomotives on the Newhaven boat train, and on freight workings between Norwood and Horsham during the following week [A. H. Tayler.]

SCOTTISH REGION

The first standard Class "5MT" 4-6-0s have reached Perth, working up to Scotland with parcels trains over the Leeds-Carlisle main line. No. 73005 has been seen regularly at Glasgow on the 1.45 p.m. from Buchanan St., with an evening turn on the postal train between Perth and Carstairs. On 20/7/51 No. 73006 passed Larbert on a Carlisle-Perth parcels train. [D. W. Field, M. Mitchell.]

News in Brief : "Scot" No. 46138 of 8A was noted at Edinburgh (Princes St.) on 5/7/51, and on 6/7/51 4-6-0 No. 44837 of 12A was at Haymarket. The following day No. 44677 (68A) was noted at Princes St. paired with a self-weighing tender. On 11/7/51 Dalry Road shed housed two interesting strangers—45025 (25A) and 45703 (3B), with 45540 (9A) and 90773 (68A) on 13/7/51 [R. K. Cox] . . . . Carlisle Canal shed had been transferred to the Scottish Region.

LOCOMOTIVE STOCK CHANGES

In all cases B.R. numbers of locomotives are employed. NYA denotes "Not yet allocated." The lists are correct to the following dates: E. & N.E.R. to 21/7/51; L.M.R. to 17/7/51; Sc.R. to 16/6/51; S.R. to 27/7/51; and W.R. to 30/6/51.

NEW ENGINES.

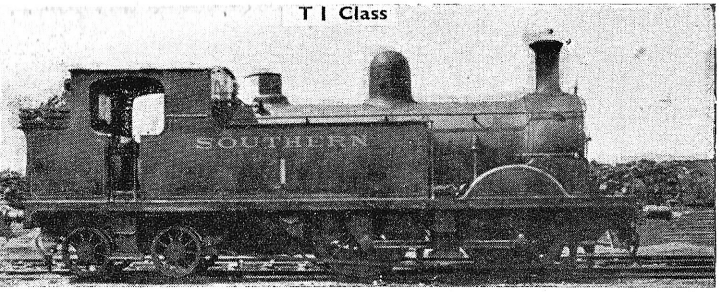
"9400" 0-6-0T: 9449-84C; 9450-NYA; **D.E. 0-6-0:** 12090-3B; 12091-3A; 15229-73C; **Class "4MT" 2-6-0:** 43111/37-31D; 43118/9-16A; 43120-14A; **Class "2MT" 2-6-0:** 46466/7-31A; 46468/9-30E; 46470-51F; 46471-51H; 46472-51A; **Class "7MT" 4-6-2:** 70016 *Ariel*-20A; 70017 *Arrow*, 70018 *Flying Dutchman*, 70019 *Lightning*-NYA. **Class "5MT" 4-6-0:** 73005/6/7/8-63A. **Class "4MT" 2-6-4T:** 80010/1-75F.

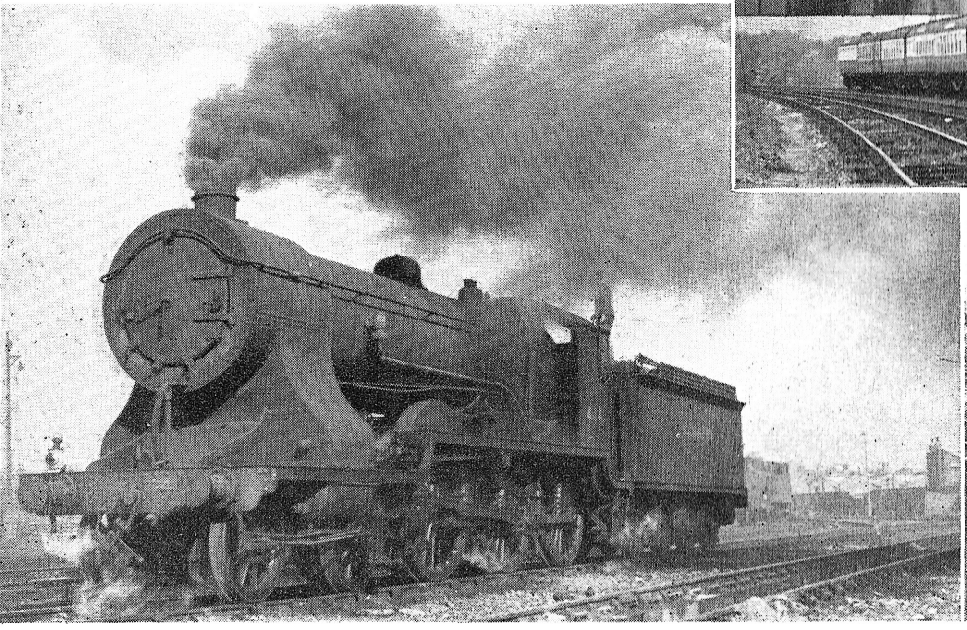
ENGINES CONDEMNED.

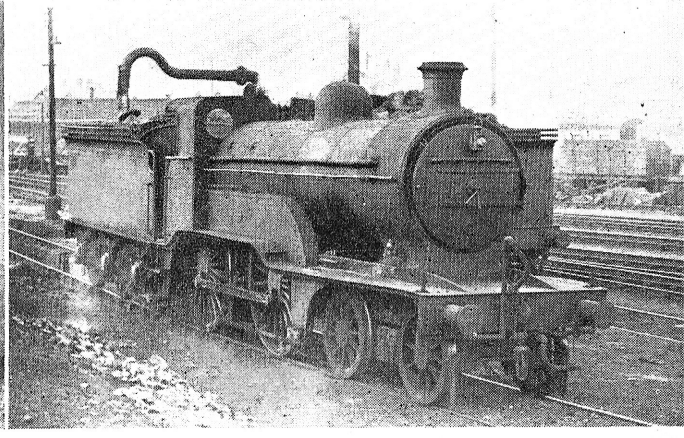
219/95/9, 1967, 2021/32/73, 2117, 2322, 2932, 3444/9, 4031/3/40, 4509, 30389, 30423/4/36, 31016, 31108/82, 31373, 31515/87, 31602, 32002/23/37/8, 32300/59, 40508/46, 41005, 41781, 41856, 46628, 49030/70, 52088, 52238, 52446, 52590, 57323, 57455, 57951, 58237/48/96, 58302/68, 61503, 62172, 62461, 62501/28, 63204, 64150/8, 65006, 65245, 65362, 65623, 67245/64, 68231/48, 68376, 69423/80.

ENGINES REALLOCATED.

375-88E; 1403-82F; 1624-84F; 1649-82B; 2159-86B; 2185/6-84J; 2232-84F; 2257-84E; 2259-89C; 2809-83A; 3026-84C; 3028-84B; 3664-84A; 3658, 3743/51-84F; 4157-84E; 4567/99-85A; 4584-89C; 4605-84H; 4646-84F; 5094-82F; 5137-84C; 5508-82D; 5521-89C; 5666-88D; 6338-84B; 6611/7-84J; 6688-87K; 6812-84B; 6835-84C; 6936-85B; 6992-85C; 8452-84C; 8465/71-88D; 9425-84C; 9447-87B; 9448-87A; 9787-87F; 9793-84J; 12084/5-Sc.R.; 12090-3A; 15101/3-84E; 30438-72C; 30693-71B; 30732-71D; 30835/6/7-75B; 31064/5-74A; 31258-74C; 31260-74D; 31295, 31326/7-73E; 31322-75F; 31369-74C; 31461-73E; 31491-70E; 31503-73B; 31577/86/91-75B; 31580/1/2/3/4-73A; 31589-74D; 31631/8-75B; 31691/2/3-73C; 31712/3-73D; 31714/5-73E; 31716/7-74D; 31817/8-74C; 31823/74/5-73B; 31857/8/9/60/1/2-73C; 31899, 31900-73A; 32346/7/8-73B; 32349-71D; 32443-75C; 32538-75G;







MAINLY TOPICAL: *Top left*: An ex-L.S.W. Class "T1" 0-4-4T of the S.R., the last of which has now been withdrawn. So have the last S.R. Class "T14" 4-6.0s, of which No. 444 is seen at Nine Elms (*bottom left*) and E.R. Class "D2" 4-4-0 No. 62172, photographed (*bottom right*) at Grantham. *Top right*: S.R. Pacifics now work through to Oxford on cross-country expresses from Bournemouth; No. 34108 *Wincanton* passes Kennington, near Oxford, with the through train from Birkenhead (2/7/51)

[C. C. B. Herbert, R. H. G. Simpson, J. R. Eagles

VALE—Ex-L. & Y. Hughes 4-6-0 No. 50455 pulls out of York for the last time on 1/7/51, returning to Blackpool with the special "last run" excursion for enthusiasts *[E. N. Price*

33014/5-73C; 33036/7/8-73A; 40075-20D; 40147-20A; 40377-7A; 40430-9F; 40433-2B; 40585, 40690-26C; 40673-10B; 40900-9E; 40933-5A; 40926/36, 41090-3E; 41040/57/9, 41144-15B; 41100/1/2/3/60/7-35C; 41122-2A; 41186/9/94-27C; 41187/92-28A; 41191-27E; 41287-7D; 41661-19A; 41930/44/5/51/69/70/8/81-33B; 41934/53/80/92-33A; 41959/85-33C; 42061, 42315, 42426-6A; 42531-33C; 42773-3D; 42896, 42904-35C; 43052-50C; 44364-4A; 44763, 44837-12A; 44892, 45019-11A; 45001/45/95-7C; 45014-12A; 45051-3E; 45057-10C; 45141-11B; 45247/92-7C; 45334-28A; 45425-10C; 45505-10B; 45523/5/8/35-1B; 45555/95-9A; 45593, 45673-10B; 45639-20A; 45647-8A; 45677-1B; 45688, 45703/33/4/7/8/41/2-3B; 45718-9A; 46110/46/63-12A; 46134/40/8-5A; 46151/8/65-8A; 46155-7C; 46166-5A; 46205-5A; 46206/26/8/36/8-1B; 46430-7D; 46435-27C; 46683-2C; 47300-33B; 47590-5C; 47598-5B; 48310, 48477-3A; 48453-24A; 48602-3A; 48744-9A; 48710/65-24A; 48907-3C; 49089-3D; 49093-8B; 49134-CME, Crewe; 49142-9B; 49249-8B; 49271-5B; 49339-CME, Crewe; 49385-4A; 49448-86K; 50640-27C; 50736-25F; 50764-24B; 50831-24D; 50886-25F; 52102-26B; 52319/69-24B; 52358-26B; 52368-28B; 52527/79-24B; 52561-25F; 57690-66D; 58045-23A; 58054-15A; 58071-22B; 60061-34E; 60139/44-37B, 60802/9/10/60-52A; 60814-64A; 60826/65-31B; 60830-35A; 60879-38E; 60913-31B; 60944/9, 61024-52A; 61047-32A; 61089-30A; 61199-52A; 61370-40A; 61373/9-40B; 61445-50E; 61515-30E; 61568, 61661/5-32A; 61659/70-32D; 61721/34/69-65A; 61921/42/7-31B; 62507/72-31C; 62608-32G; 62609-9E; 62732/4-12B; 62739/56-50E; 62764-50B; 63584, 63640/5-39B; 64583-64F; 64649/56, 64779/81-30A; 64710-54C; 64727/33-Sc.R.; 64787, 64874-30F; 64876-37A; 64900-32A; 64919/21-54C; 65440/4/6-30A; 65453-30F; 65562/79-31B; 65822/62-52F (SB); 67152-32E; 67176/8-32C; 67244-52A; 67293-50C; 67252/70, 67310-52B; 67316-52C (H), 67342-51C; 67356/74-31C; 67440-37A; 67441/7/8/50/1-39A; 67647-51E; 67673-51D; 67710-32B; 67756-34E; 67774-34B; 68071-39A; 68098-64A; 68162-6E; 68220-31C; 68440-52E; 68552-64A; 68565-30A; 68623/35-36A; 68653-30A; 68661-30F; 68673-53C (AD); 69432/4/9-37C; 69450-37B; 69463-37A; 69637/43-38D; 69678-30E; 69689/92/4/8-34A; 69701-30A; 69717/20-30E; 69801/10/8-38A; 69837/41/2-51A; 69867/79-50E; 69877-50B; 69915-51B; 69919-53A; 90031-36C; 90164-27B; 90188, 90225-86A; 90206-26C; 90247-27B; 90330, 90411-38A; 90402-26C; 90427-53C; 90468/93-66B; 90490, 90647-36C; 90630/85-86A; 90632-26C; 90663-53C; 90701-86A; 90713-26C.

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★ ★ ★ ★

SPOTTINGS & JOTTINGS

NEWS AND VIEWS FROM LOCOSPOTTERS CLUB HEADQUARTERS.

YOUR OPINION, PLEASE!

YOU may remember that last month I gave you a job to do—the none too easy job of finding adults who are willing to become Club local Secretaries. Some encouraging results are already coming in, but we still have a lot of gaps to fill, so keep trying. The next stage is to get a clearer idea of the sort of activities you want, so we are asking you this month to join in our own private opinion poll, and to let us have your answers to our questionnaire.

All you have to do is to send a postcard (2d. stamp) to Ian Allan Locospotters' Club, 282 Vauxhall Bridge Road, London, S.W.1, marking it "CLUB POLL" in the top left-hand corner. On the other side give your name, address, age and Membership Number followed by your answers. These are the questions—there is no need to copy them out, just put Q. 1: YES (or NO, as the case may be), and so on. Results will be given in a later issue.

Q. 1. Are you a member of an official Club Local Group? If so, state which Group.

Q. 2. Have you ever attended a big Club Outing or Rally?

Q. 3. Are you interested in Group meetings for railway discussions, entertainments, etc.?

Q. 4. Are you interested in visits to Loco Sheds, Works, etc.?

Q. 5. Assuming you have to pay something towards the cost of either of the above, which do you prefer?

Q. 6. Are you interested in large-scale "Special" trips to Railway Works, etc. (like those to Southampton Docks and Derby Works recently)?

Q. 7. If you had the choice, would you prefer to take part in such visits with a large party or a small party (about 25)? Answer—LARGE or SMALL.

Q. 8. Are you interested in Big Rally entertainments in large centres?

Q. 9. If the Club were deciding between a Big Rally in your centre and a Special Train visit to a Loco Works some distance away, which would you prefer to attend? Answer—RALLY or WORKS, or if you don't like big events, answer NEITHER.

Q. 10. Have you any suggestions for activities that members could do together, apart from large or small-scale meetings and visits? If so, state them briefly.

There you have them, 10 questions; now let's have the answers pouring in from Club members in all parts!

HIGH PRESSURE AT DERBY! Area Secretary Mr. Norman Bamforth reports he is handling a Group of over 400 in Derby quite apart from his responsibilities in other parts of the county. We are all very grateful to him. HIGHLIGHT for DERBY AND NOTTINGHAM members this summer is their *Special York Visit* on September 9th. If you live in range of these areas and are not already in touch with Mr. Bamforth, send stamped addressed envelope *at once* to him at 28 Howe Street, Derby.

D. J. Warburton

SPOTTER OF THE MONTH

July's winner was 36201 A. J. Davies of Beeston, Notts. Congratulations, Locospotter Davies!

SEPTEMBER ENTRY COUPON

SPOT FOUR LOCOS whose number digits add up to 21 (e.g. 4980) during the fortnight September 15th to 28th. Club members only. This coupon must be used and completed. Prize of six free "T.I." issues to first correct entry received; result in November issue.

NAME_____ Membership No.____

ADDRESS_____

I claim the title of "Spotter of the Month" for September. I saw the following locos (digits totalling 21), between September 15th and 28th:

Number	*Shed*	*Point Seen*	*Time*	*Date*

THIS COUPON MUST BE SENT TO CLUB H.Q. BY SEPTEMBER 30th, 1951.

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